MEDICAL REPORTS

FOR THE

HALF YEAR ENDED 31ST MARCH 1873;

FORWARDED BY THE SURGEONS TO THE CUSTOMS AT THE TREATY PORTS IN CHINA;

BEING No. 5 OF THE SERIES,

AND

FORMING THE SIXTH PART OF THE

CUSTOMS GAZETTE

FOR

JANUARY-MARCH, 1873.

PUBLISHED BY ORDER OF

The Inspector General of Customs.

SHANGHAI:

PRINTED AT THE CUSTOMS PRESS.

MDCCCLXXIII.

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Inspector General's Circular No. 19 of 1870.

Inspectorate General of Customs,

Peking, 31*st December*, 1870.

SIR,

1.—It has been suggested to me that it would be well to take advantage of the circumstances in which the Customs Establishment is placed, to procure information with regard to disease amongst foreigners and natives in China; and I have, in consequence, come to the resolution of publishing half-yearly in collected form all that may be obtainable. If carried out to the extent hoped for, the scheme may prove highly useful to the medical profession both in China and at home, and to the public generally. I therefore look with confidence to the co-operation of the Customs Medical Officer at your port, and rely on his assisting me in this matter by framing a half-yearly report containing the result of his observations at.....upon the local peculiarities of disease, and upon diseases rarely or never encountered out of China. The facts brought forward and the opinions expressed will be arranged and published either with or without the name of the physician responsible for them, just as he may desire.

2.—The suggestions of the Customs Medical Officers at the various ports as to the points which it would be well to have especially elucidated, will be of great value in the framing of a form which will save trouble to those members of the Medical profession, whether connected with the Customs or not, who will join in carrying out the plan proposed. Meanwhile I would particularly invite attention to—

a.—The general health of.....during the period reported on; the death rate amongst foreigners; and, as far as possible, a classification of the causes of death.

b.—Diseases prevalent at.....

c.—General type of disease; peculiarities and complications encountered; special treatment demanded.

d.—Relation of disease to
- Season.
- Alteration in local conditions—such as drainage, &c.
- Alteration in climatic conditions.

e.—Peculiar diseases; especially leprosy.

f.—Epidemics
- Absence or presence.
- Causes.
- Course and treatment.
- Fatality.

Other points, of a general or special kind, will naturally suggest themselves to medical men; what I have above called attention to, will serve to fix the general scope of the undertaking. I have committed to Dr. R. Alex. Jamieson, of Shanghai, the charge of arranging the reports for publication, so that they may be made available in a convenient form.

3.—Considering the number of places at which the Customs Inspectorate has established offices,—the thousands of miles north and south and east and west over which these offices are scattered,—the varieties of climate,—and the peculiar conditions to which, under such different circumstances, life and health are subjected, I believe the Inspectorate, aided by its Medical Officers, can do good service in the general interest in the direction indicated, and, as already stated, I rely with confidence on the support and assistance of the Medical Officer at each port in the furtherance and perfecting of this scheme. You will hand a copy of this Circular to Dr.....and request him, in my name, to hand to you in future, for transmission to myself, half-yearly reports of the kind required, for the half-years ending 31st March and 30th September—that is, for the Winter and Summer seasons.

4.—That the Medical Officer at your port may know who are the other members of the profession with whom he is invited to join in this work, I append a list of the officers at each port or place.

Peking,	Dr. J. DUDGEON.
Newchwang,	Dr. J. WATSON.
Tientsin,	Dr. J. FRAZER.
Chefoo,	Dr. CARMICHAEL and Dr. MYERS.
Hankow,	Dr. A. G. REID.
Kiukiang,	Dr. G. SHEARER.
Chinkiang,	————
Shanghai,	Dr. BARTON, *(a)* and Dr. GALLE *(b)*.
Ningpo,	Dr. R. MEADOWS *(a)*.
Foochow,	Dr. J. M. BEAUMONT.
,, Pagoda Anchorage,	Dr. SOMERVILLE, and Dr. SHERWIN *(b)*.
Amoy,	Dr. JONES *(a)* and Dr. MÜLLER *(a)*.
Tamsui,	Dr. L. H. FRANKLYN.
Takow,	Dr. P. MANSON *(a)*.
Swatow,	Dr. SCOTT.
Canton,	Dr. F. WONG.
,, Whampoa,	Dr. R. SHILLITOE *(a)*.

I am, &c.,

(signed) ROBERT HART,
I. G.

THE COMMISSIONERS OF CUSTOMS.—*Newchwang*, *Ningpo*, *Tientsin*, *Foochow*, *Chefoo*, *Amoy*, *Hankow*, *Tamsui*, *Kiukiang*, *Takow*, *Chinkiang*, *Swatow*, and *Shanghai*, *Canton*.

(a) Resigned. *(b)* Absent.

SHANGHAI, *24th September*, 1873.

SIR,

IN accordance with the directions of your despatch No. 6 *A* (Returns Series) of the 24th June 1871, I now forward to the Returns Department of the Shanghai Office the following documents :—

A.—Report on the Health of Amoy for the October–March half year (1872–73), pp. 7–14;

B.—Report on the Sanitary Condition of Chefoo for the April–March twelve months (1872–73), pp. 15–22.

C.—Report on the Health of Tientsin, pp. 23–24;

D.—Report on the Health of Ningpo, p. 25;

E.—Report on the Health of Takow and Taiwan-foo, pp. 26–28;

F.—Report on the Health of Hankow, pp. 29–36;

G.—Report on the Health of Foochow (Pagoda Anchorage), pp. 37–46;

H.—Report on the Health of Newchwang, pp. 47–49;

I.—Report on the Health of Shanghai, pp. 50–58; each of these seven Reports relating to the October–March half year (1872–73).

I have the honour to be,

SIR,

Your obedient Servant,

R. ALEX. JAMIESON.

THE INSPECTOR GENERAL OF CUSTOMS,

Peking.

The Contributors to this Volume are—

P. MANSON, M.D., M. CH.,	Amoy.
W. W. MYERS, M.B., M. CH.,	Chefoo.
J. FRAZER, L.R.C.S.I., L.R.C.P.E.,	Tientsin.
J. H. MACKENZIE, M.D., L.R.C.S.E.,	Ningpo.
D. MANSON, M.D., M. CH.,	Takow and Taiwan-foo.
A. G. REID, M.D., F.R.C.S.E.,	Hankow.
J. R. SOMERVILLE, M.D., F.R.C.S.E.,	Pagoda Anchorage, Foochow.
J. WATSON, M.D., L.R.C.S.E.,	Newchwang.
R. ALEX. JAMIESON, M.A., M.D., M.R.C.S., F.R.G.S.,	Shanghai.

A.—Dr. Manson's Report on the Health of Amoy for the half year ended 31st March 1873.

The weather during the six months was unusually mild and dry. In consequence of the want of rain the autumn crop of rice proved in many districts a complete failure. The evil effects of this were to a great extent counteracted by a large import of very cheap grain from Japan. But for this timely supply of food famine would have been inevitable, and I should probably have had to chronicle much distress and disease. However equivocal the advantages of foreign trade in China may be in some instances, in this case at least it has conferred an infinite boon. In future, famine is almost impossible in the coast provinces, for wants can now be indicated by telegraph, and supplied by steamer, almost as soon as they are felt.

In my last report the rise and progress of an epidemic of dengue were described. By the end of September nearly the whole of the population in and around Amoy had passed through the disease. Very few cases occurred in October, only two amongst the foreign residents. One case was met with on the 8th of November and another on the 12th, and these were the last observed. During the winter I have seen a good deal of the sequelæ. Persistent rheumatic-like pains in the feet were very common, and continued to trouble many patients months after all other traces of the disease had vanished. These pains were most capricious in their appearance, one day altogether absent, the next so severe as almost to incapacitate the sufferer from putting his feet to the ground. They were worst usually in the morning on getting out of bed. In one instance the right arm and hand were so painful that for a long time the limb was quite useless, practically paralysed; the hand swelled considerably, and during the night the whole limb was the seat of a burning heat. In this case great relief followed the employment of faradization. In another case, that of an elderly gentleman, the attack of dengue was followed by a gradual and increasing impairment of sight. Amongst the Chinese I have noted many instances of debility, dyspepsia, rheumatism, paralysis of certain groups of muscles, and perhaps insanity, as consequences of dengue.

Scarcely had this disease subsided ere an epidemic of syphilis began, chiefly amongst sailors. It is impossible to say how many were infected, but some idea of the number may be formed from the following table kindly supplied me by Dr. Galloway of H. B. M. S. *Elk*. This gun-vessel has been on the station for the last nine months; the crew numbers 70 men, and no unusual restriction has been placed upon their going on shore, at least since the subsidence of the dengue epidemic.

Table showing the amount and character of Venereal disease contracted in Amoy by the crew of H. B. M. S. *Elk*, from September 1872 to March 1873.

PATIENTS ENTERED ON SICK LIST.			PATIENTS NOT ENTERED ON SICK LIST.		
Person.	Date Contracted.	Disease.	Person.	Date Contracted.	Disease.
Seaman,.....	September 13th, 1872,...	Syphilis.	Seaman,.....	November, 1872, ...	Syphilis.
Chinaman,...	,, 30th, 1872,...	Gonorrhœa.	,, ...	,, 1872, ...	,,
,, ...	November 1872,...	,,	,, ...	,, 1872, ...	,,
Seaman,.....	December 4th, 1872,...	,,	,, ...	January, 1873, ...	Gonorrhœa.
,, ...	,, 26th, 1872,...	,,	,, ...	,, 1873, ...	,,
,, ...	,, 26th, 1872,...	,,	,, ...	February, 1873, ...	Syphilis.
,, ...	,, 28th, 1872,...	,,	,, ...	,, 1873, ...	,,
,, ...	January 1st, 1873,...	Syphilis.	,, ...	March, 1873, ...	,,
,, ...	February 3rd, 1873,...	,,	,, ...	,, 1873, ...	,,
,, ...	,, 6th, 1873,...	,,	,, ...	,, 1873, ...	,,
,, ...	March 2nd, 1873,...	Syphilis and Gonorrhœa.	,, ...	,, 1873, ...	,,
,, ...	,, 9th, 1873,...	Syphilis.	,, ...	,, 1873, ...	,,
			,, ...	,, 1873, ...	,,

Thus during seven months, out of a crew of 70 men, 25 had venereal disease; there were other cases, but as they were contracted elsewhere than in Amoy they are not given in the above table. All the cases entered as syphilis were not instances of hard chancre, though a large ratio were. If this table and the facts it exposes are to be taken as the standard for the rest of the floating population passing through Amoy, an enormous amount of disease must be assumed as having originated here. There is a great similarity between the different cases. The period of incubation is usually a very long one, from four to six weeks, the chancre is of the most trifling character as an ulcer, but the induration is extensive, very marked, and persists for months; the inguinal glands enlarge and harden but do not suppurate, and usually in about six weeks from the discovery of the sore, or about two or three months from the date of infection, roseola or acne, usually the former, and sore throat present themselves. In good constitutions and where treatment can be carried out properly the symptoms are as usual very amenable to treatment by mercury. It is impossible however to estimate the damage done to the unhealthy and to those who by circumstances cannot get proper attention and treatment. The aggravation of the local disease by the sailor's favourite remedy for soft chancre, hard chancre, excoriation, herpes and every description of breach of surface about the penis—burnt alum or powdered bluestone thoroughly applied—the injudicious salivation, the mental distress, the headache, sore throat, rheumatism, cachexia and the whole train of syphilitic horrors, make up an indescribable amount of suffering. It is painful to witness the progress and spread of so much mischief, wilful both on the part of the victim and on the part of those who might look after him better. It has been abundantly proved that syphilis can be stamped out by very simple measures. These may meet with much opposition in many parts of Europe, but here, where on such subjects unglozed facts have made people more latitudinarian, there can be little to hinder the adoption of measures calculated to check and finally eradicate the disease.

During the winter I saw a few cases of whooping cough amongst the Chinese, and since the middle of January small-pox was unusually rife. Both diseases were of a very mild type. The small-pox is said to have had a mortality of only one in twenty, and on account of the benign type it exhibited the native inoculators have been very busy and have probably done much to spread the disease. Seven foreigners were attacked, four of the shoregoing and three of the floating population. All the cases ran a very mild course, being much modified by previous vaccination.

An epidemic worthy of a passing notice showed itself amongst the large stud of horses and ponies owned by foreigners. The symptoms are, a sero-purulent discharge from the nose, usually from one nostril, enlargement of the corresponding submaxillary gland, loss of condition, and in several cases glandular swellings in different parts of the body—in one case abscess. The disease continues without much alteration for months. No horse has recovered from it nor has any died. At first it was confined to one stable. On the supposition that it might be glanders several were slaughtered, and in one of these, the only one opened, superficial ulcerations of the mucous membrane of the nose were discovered; the enlarged submaxillary gland on being cut into was found to contain a few drops of sticky pus, as also did several small button-like swellings on one flank.

During the six months, there were no deaths on shore. There were 3 amongst the shipping, none of them from disease, however. One was caused by fractured cranium from a fall from aloft; another, a Siamese, a case of stabbing; the circumstances of the third were peculiar. I was sent for on the morning after New-year's day to see a sailor said to have been found dead in bed. I found him lying in his bunk, his face buried in a soft pillow, the nose driven to one side by the weight of the head, the face livid from congestion, froth about the mouth and nostrils, the body still warm and in a state of cadaveric rigidity. No disease was detected at the postmortem examination, but great congestion of the lungs, engorgement of the right side of the heart, and patches of ecchymosis on the pleura and pericardium were found. The contents of the stomach stank of liquor. At the inquest his companions said he had had a great deal to drink the previous evening and was naturally a very heavy sleeper. No doubt he smothered himself while in a state of helpless drunkenness. The Siamese was stabbed on New-year's day and was found dead the following morning.

During the six months nearly 140 sailing vessels were under observation; the average stay of each was nearly 17 days; their crews consisted of 915 Europeans, 371 Malays, and 246 Chinamen, total 1,532. Amongst these 90 were sick on arrival, and 142 became sick while in port.

List of Cases of Disease occurring among the floating population from 1st October 1872 to 31st March 1873.

1.—*Miasmatic Diseases.*

4 cases of dengue.
30 „ „ intermittent fever.
1 „ „ febricula.
3 „ „ small-pox.
1 „ „ typhoid fever.

2.—*Enthetic Diseases.*

39 cases of gonorrhœa.
20 „ „ primary venereal sore.
34 „ „ constitutional syphilis.

3.—*Diseases of the Digestive Organs.*

29 cases of diarrhœa.
3 „ „ dysentery.
1 „ „ sore throat.
4 „ „ dyspepsia.
1 „ „ piles.
1 „ „ lumbricus.
5 „ „ tapeworm.
1 „ „ enlarged tonsils.
3 „ „ gastric catarrh.

4.—*Diseases of the Circulatory and Respiratory Organs.*

2 cases of phthisis.
2 „ „ bronchitis.
3 „ „ pleurisy.
1 „ „ angina pectoris.

5.—*Diathetic Diseases.*

1 case of gout.
4 „ „ rheumatism.
2 „ „ sciatica.
1 „ „ dengue rheumatism.

6.—*Diseases of the Generative Organs.*

2 cases of stricture of the urethra.
1 „ „ urethritis.
1 „ „ secondary orchitis.
1 „ „ phymosis.
1 „ „ epididymitis.
1 „ „ balanitis.

7.—*Diseases of the Integuments.*

2 cases of boils.
1 „ „ ulcer of the foot.
1 „ „ ulcer of the leg.
3 „ „ itch.

8.—*Diseases of the Eye.*

5 cases of conjunctivitis.

9.—*Accidents.*

3 cases of incised wound.
2 „ „ bruise.
1 „ „ burn.
1 „ „ fracture of femur.
1 „ „ fracture of cranium.
1 „ „ asphyxia from drunkenness.
1 „ „ sprain.

10.—*Other Diseases.*

2 cases of whitlow.
1 „ „ bursitis.
2 „ „ adenitis.
1 „ „ synovitis.
1 „ „ alcoholism.

Although the ratio of primary venereal sore is double that of previous reports, it by no means represents the total of cases acquired within the last six months in Amoy. The incubation period of the indurated chancre is so long that sailors becoming infected pass from under observation before the disease is developed, and in many instances the local disease is so trifling that a careless man pays no attention to it.

The case of *typhoid* came from Woosung. The symptoms were very well marked, the rose coloured spots and the temperature curve were particularly characteristic. Although his ship had been in the river, he did not go ashore at Woosung, nor did the ship take in water there, so that it is difficult to say how he became infected.

Lymph Scrotum.—In the report for the half year ended 30th September 1871,* short notes were given of three cases of a peculiar disease of the scrotum, of which, during a six years experience in Formosa

* Customs Medical Reports, No. 2, p. 13.

and Amoy, one case only had been seen. Since writing that report six additional cases have presented themselves, the notes of five of which I subjoin. The sixth left the hospital before I could get an account of him, but as far as I remember his case resembled the others. I have considered it of importance to give the notes, as nearly as is compatible with clearness, as they were made by the Chinese assistants. Thus, though perhaps at the expense of elegance, I hope to give true portraits of the originals.

4. Sun san; æt. 31; sailor; native of Tchin Rhang, Oahai; unmarried; a poor man living on rice and vegetables.

When 19 years of age he received a severe beating and suffered much in consequence. To remove the effects of the beating he took some native medicine, and soon after taking this his scrotum became red, swollen and painful. This continued for four months, and it was only after taking some other medicine that it subsided. About this time he began to have attacks of quotidian and tertian ague, many attacks in the course of a year, and when the ague was on him the inguinal glands and scrotum became red, swollen and painful, but when the ague got well the local symptoms disappeared. These attacks were of short duration though of frequent occurrence. They continued to recur during 10 years until he was 29 years of age. About this time he became dissipated, and exhausting himself he got an ague which did not leave him for 5 months; during all which time the scrotum, testicles and inguinal glands were inflamed. This subsided, and 16 months ago, two small vesicles appeared at the bottom of the thickened scrotum, and these frequently bursting discharged from half an ounce to four or five ounces of serous looking fluid. The left testicle, hitherto considerably enlarged, now diminished in size.

On his way to the hospital he walked great distances, and in consequence the scrotum and testicles were considerably inflamed when I first saw him. A fluctuating swelling over the right testicle was opened by a small incision and about a tablespoonful of dark sanious pus evacuated. When the sac of the abscess appeared to be emptied of its original contents a thin fluid exuded through the wound. The skin of the scrotum and penis was thickened but soft and pliant. Abundance of straw coloured fluid could be obtained by pricking the two small vesicles already mentioned at the lower part of the scrotum, but from no other part. The inguinal glands, four on each side, were very much enlarged, hard and slightly tender.

5. Tan poeh; æt. 53; pedlar; native of Amoy; lives on rice, salt fish and salted vegetables.

Since he was 30 years of age he has been very liable to attacks of quotidian or tertian ague during the summer. At 34 his left testicle enlarged and became painful, he being at the time suffering from an unusually severe attack of ague. After lasting about 10 days the inflammation and ague subsided. After another interval of about 10 days the other testicle became swollen and painful and the ague returned. The patient described the pain as excessive, evidently that of orchitis. After ten days more an abscess formed, and discharged about two ounces of fetid pus. It healed in about a week, and when it had healed the ague had left him. Nothing appears to have occurred until about a year after these symptom of disease in the scrotum had subsided, but at the end of this time the scrotum itself began to thicken, the ague returned, and the inguinal glands swelled to the size of a duck's egg and became painful. In a few days he got quit of the ague and the scrotum diminished a little in size. From that time for 15 years he has had attacks of ague, accompanied by swelling of the inguinal glands and scrotum, once or twice every month, the attacks lasting for five or six days. When 51 years of age he first observed vesicles on his scrotum, and then he had had no inflammation or fever for upwards of a year previously, the scrotum appearing only thickened. This year he had a relapse of ague and swollen scrotum and glands lasting for 6 days. When this subsided, and as soon as he could walk, he came to the hospital.

When I saw him only one inguinal gland on each side was enlarged. The scrotum was studded with vesicles, which on being pricked exuded at first a bloody looking fluid, but after running for a short time it became clear and serous looking.

6. Tchon gim; æt. 19; native of Amoy; unmarried; a shroff in a foreign hong, and in comfortable circumstances.

With the exception of an attack of ague 11 months ago he has always enjoyed excellent health. He had only three or four ague fits at that time and has had none since. As soon as the fever began the left

testicle became swollen and very painful. The orchitis lasted for about 3 weeks, and from this date the scrotum thickened without inflammation, steadily increasing in size. Within a month a swelling gradually formed on the right side over the saphenous opening, and after another month the left side became similarly affected. With these exceptions he has continued in perfect health. No discharge from the scrotum.

The skin of the scrotum is soft and pliable, but roughened by innumerable vesicles which when pricked discharge three or four ounces at a time of a light salmon-coloured, milky fluid. This coagulates rapidly, separating on standing into a clot and serum. The clot rapidly contracts, and on its surface a number of red branching lines form, converging to a point where the coloured matter accumulates in greater quantity. The appearance of vascularity is very like that on the surface of a fertilised egg. After standing for one night the clot disappears, and only a white fluid similar to that drawn off the previous afternoon, with a small quantity of dark red sandy looking sediment, remains.

Under the microscope, the exuded fluid was seen to contain two kinds of corpuscles, in most respects like those of the blood. The two kinds appeared to be in about equal proportions. Those similar to the red corpuscles differed from those of the blood in not exhibiting any disposition to accumulate in rouleaux, but rolled across the field one quite independent of the other. Thus they exhibited many different shapes, according as the surface or the edge of the disk was presented to the eye. The accompanying rough sketch gives some idea of the variety of forms observed.

1, 2, 3, 4, 5.—Corpuscles like red blood corpuscles, appearing of different shapes according as the edge or surface of the disc is presented to the eye.

6, 7.—The same doubled on themselves.

8, 9.—The same partly desiccated.

10, 11.—Spherical corpuscles like white blood corpuscles.

12.—Appearance as they float across the field.

7. Tchin sien; æt. 55; a field labourer; native of Liong Shae; lives on rice, salted fish and vegetables.

Since childhood he has been very subject to quartan ague. Ten years ago he had two abscesses in the scrotum, after which it became swollen and painful. Whenever the ague was on him the fever and inflammation subsided together. He has had an intermitting discharge from the scrotum for about a year only. Fifteen months ago he had an attack of ague, more severe than usual, and accompanied by swelling and pain of the left knee; since then this joint has been stiff and limited in its movements. He had an ague when he presented himself at the hospital, the scrotum was swollen and tense, and the vesicles, at other times very apparent, were obliterated, evidently by the stretching of the skin. Still, vein-like lines could be seen under the skin filled with a fluid which, by pressing the finger along the course of the vessel, could be driven elsewhere. Ordinarily the scrotum is about the size of a small pumelo; it is studded with innumerable vesicles which burst four or five times a month, discharging 4 or 5 ounces of clear serous looking fluid at a time. Inguinal glands enlarged.

8. In tso; æt. 65; a field labourer; native of Khan Khaw; lives on wheat, sweet potatoes, salt fish and vegetables.

One of his sons has elephantiasis of the leg, increasing rapidly with frequently repeated attacks of fever and inflammation of the lymphatics. He himself, until he was upwards of 30 years of age, enjoyed excellent health; then he had an ague, and afterwards for the last 32 years has had a recurrence of the ague every winter; the attacks are of short duration, lasting for a few days only. Last year, however, about 8 months ago, he had a heavier attack than usual, tertian in type and lasting for 4 months. During this attack the inguinal glands became swollen and painful, the skin of the scrotum thickened, rough, irregular, and covered with innumerable vesicles. The acuter symptoms subsided after a time, but the vesicles and enlargement of the scrotum remained, and, sometimes spontaneously but sometimes as the result of injury, the vesicles would rupture every month or two discharging 6 or 8 ounces of fluid, the discharge running for 3 or 4 days at a time and ceasing spontaneously.

When he came to hospital I pricked two or three of the vesicles, and easily collected about 10 ounces of a clear straw-coloured fluid of specific gravity 1010. On standing a short time, the fluid was seen to coagulate, though more feebly than in case No. 6, and the clot did not exhibit such marked contractile properties, but as in that case, the surface of the clot became streaked with red branching lines. The clot did not redissolve. Under the microscope plenty of corpuscles, like those of blood without the reddish tinge and disposition to accumulate in rouleaux, and corpuscles like those of lymph, were observed. As in all of these cases, the fluid became solid on boiling.

The leading facts of these eight cases are condensed and arranged in the accompanying table; the points of resemblance and contrast can thus be ascertained at a glance, and an approximation to a correct idea of the history of the disease arrived at.

No.	Age Years.	Occupation.	Age at first attack of Ague.	Degree of liability to Ague.	Age when first attacked by inflammation or other disease in the scrotum.	Duration of the disease.	Pathological phenomena preceding and accompanying the attack of scrotal disease.	If abscess has occurred age of patient at the time.	State of inguinal glands.	Characters of the discharge.	Degree of spontaneous coagulability of the discharge.	Microscopic characters of the discharge.	Other particulars.
1	72	Character limner.	Not recorded.	Not recorded.	71	4 months.	Rheumatism, a pustular eruption and abscesses on scrotum and back.	71	Not recorded.	Clear straw coloured and albuminous.	Not observed,	Not observed,...	Patient in a state of senile dementia.
2	45	Lime burner.	,,	,,	25	20 years.	Ague, paraplegia and abscess of scrotum.	25	,,	The same, ...	,,	,,	Legs œdematous, especially the left.
3	30	Not stated.	10	During cold weather is liable to ague.	10	Not stated.	Ague, inflammation of the inguinal glands and scrotum. Abscess encysted for 10 years.	10	On both sides much enlarged.	,,	,,	,,	—
4	31	Sailor, ...	19	Many attacks every year.	19	16 months.	Ague; inflammation of the inguinal glands, scrotum and testicles.	Small abscess opened at time of first seeing him.	,,	,,	,,	,,	Never had more than 2 small vesicles on the scrotum.
5	53	Pedlar,...	30	Quotidian ague every summer.	34	2 years.	Ague; inflammation and abscess of testicles; after a year inflammation of scrotum frequently recurring.	34	One gland enlarged on each side.	The same, but bloody when first discharged.	,,	,,	—
6	19	Shroff, ...	18	Only one attack of very short duration.	18	11 months.	Ague; orchitis; swelling of scrotum and inguinal glands.	None, ...	Much enlarged on both sides.	Milky; light salmon colour, albuminous.	Coagulates in less than a minute after withdrawal.	Crowded with corpuscles disc-shaped and spherical like those of the blood but they display no cumulative properties.	Peculiar property of contracting coagulum to cover itself with vessel-looking lines and afterwards to dissolve.
7	55	Field labourer.	Since childhood.	Very liable to quartan ague.	45	1 year.	Abscess of scrotum, and during attacks of ague inflammation of scrotum.	45	Enlarged...	Clear, straw coloured and albuminous.	Not observed,	Not observed,...	Has a stiff knee the result of a synovitis and ague 15 months ago.
8	65	,,	30	Ague every winter.	64	8 months.	Ague; inflammation of the scrotum and inguinal glands.	None, ...	,,	The same; sp. gr. 1010.	Coagulates within five minutes after withdrawal.	The same as No. 6, the corpuscles less numerous and the proportion of the disc-shaped ones greater.	A son has elephantiasis of the leg.

From a study of these cases I conclude that the history of the disease is as follows:—The patient, of any age from 18 to 72, has probably been subject to attacks of malarial fever; usually he has had many attacks but sometimes only one. During a paroxysm of the fever the scrotum and inguinal glands or perhaps the testicles become inflamed. Such attacks of fever and inflammation may be repeated many times, and usually, during one of these, an abscess forms in the scrotum. After one of these attacks, the swelling of the parts having somewhat subsided, vesicles are discovered on the surface of the thick and roughened scrotum; after a time one of these vesicles bursts spontaneously or is opened, and a large quantity of straw-coloured serous looking fluid escapes. The opening thus made is maintained for several days, and when about 8 or 10 ounces or more of fluid have run away, heals. The bulk of the scrotum is much reduced by the discharge; after a very few days however, the fluid reaccumulates, the vesicles refill, and the affected parts become as big and cumbersome as before. In every case the inguinal glands are enlarged. If the fluid is examined it is found to be loaded with albumen, and to have a specific gravity of about 1010; it coagulates spontaneously and contains corpuscles like those of the blood, the spherical in a much larger proportion than in that fluid and those resembling the red corpuscles destitute of colour and cohesive properties. Should the fluid contain a very large quantity of corpuscles it may be of a light salmon colour and milky consistence. The coagulum has the property of contracting, in some cases redissolving, and it invests itself with a network of delicate red lines resembling dilated capillaries or very small blood vessels.

It is difficult to determine positively, from the data we possess, what is the precise nature of this strange disease. I look upon it as a sort of lymph dropsy, caused by arrest of the circulation of lymph through the glands appertaining to the lymphatic system of the scrotum; this stoppage of circulation depending on the thickening and constriction these delicate vessels have undergone during repeated attacks of inflammation of malarial origin. The lymph thus obstructed in its progress towards the blood accumulates in the scrotal lymphatics, dilates them, and continues to some extent the development it has begun which would otherwise have been completed in the thoracic duct or general circulation. Hence the advanced state of its corpuscles and the striking character of the coagulum. Why the lymph should not become organised into a tissue as in ordinary elephantiasis, when in the body, is the mystery of the disease. Perhaps some explanation of this may be afforded by the abscess which in most instances precedes the development of the vesicles, or there may be some radical difference between this and the ordinary form of elephantiasis, rendering this "lymph-scrotum" a disease sui generis.

B.—Dr. W. W. Myers's Report on the Sanitary Condition of Chefoo from 1st April 1872 to 31st March 1873.

Having already * described the geographical and hygienic features of this port, little remains for me now but to pass on to the meteorological and nosological records. First I would draw attention to the agreeable modification the temperature underwent during last summer as contrasted with the previous one. Chefoo has thus recovered that portion of its fame which was lost by the unprecedented heat of the previous year, and has once more asserted its rank as the sanatorium of China.

Meteorological Table..

1872.	Fahrenheit.		Mean Barometer.
	Mean Max.	Mean Min.	
April,	60°	45°	—
May,	75°	54°	29.50
June,	78°	67°	29.55
July,	87°	73°	29.68
August,	83°	74°	29.76
September,	77°	65°	29.50
October,	66°	57°	30.17
November,	54°	39°	30.29
December,	46°	34°	30.30
1873.			
January,	35°	27°	30.66
February,	42°	28°	30.34
March,	47°	32°	30.18

Note.—For these readings I am indebted to Mr. Howard, Harbour Master at this port. They were taken from instruments placed on a wall having a north-easterly aspect.

I have roughly ascertained the relative quantities of ozone present in different parts of the settlement and outskirts. Taking the ordinary iodide of potassium and starch test-paper I assumed that paper as the standard which showed the most marked signs of chemical decomposition. This I called 1; and represented lower evidences of chemical action by decimals.

Thus at "Cunningham's Bungalow," *i.e.* at the extreme end of the western bight of the East Beach, I found the paper exhibited the deepest tint. I marked this 1.

At the Chefoo Family Hotel, about 500 yards nearer the settlement than the last place, the effect may I think be indicated by ·9.

At "Fuller's House," say half a mile nearer Yentai, I should also indicate the amount of ozone by the decimal ·9.

At a point in Beach Street, half way between the sea and Sieta's store, the indications may be represented by ·8.

At a point two thirds up Signal Hill, ·9.

At the back of the site of the old Consulate—a position somewhat similar to the one chosen at "Cunningham's Bungalow,"—facing the sea, the tint was entitled to be registered as 1.

This of course is but a very rough method of ascertaining the amount of ozone present; but in the absence of means and time to make more accurate experiments I have thought that even this primitive plan of measuring results may serve temporarily and prove of interest. That the atmosphere is not anywhere deficient in allotropic oxygen is pretty plain; but still the different effects at the various points chosen were in my opinion clearly visible and are as accurately indicated as possible by the decimals given. I regret not having the tables by me for working out the results obtained from a test solution of known strength,

* Customs Medical Reports No. 3, p. 37.

so until next year I must postpone this more correct and scientific way of indicating the information I have for the present only hinted at.

During few previous years has there been such a gathering of ships of war, yet I fancy it has never been the good fortune of any medical officer to have to record less disease or mortality. More than one naval surgeon has expressed his gratification at the results obtained from the trip to this port on ships' companies previously unhealthy. It will be seen by reference to the meteorological table that last winter was by no means severe; but I cannot say, judging from the nosological record, that this proved much of an advantage. The cold here, even in the extremity of its severity, is, as I have pointed out before, dry and generally equable during day and night; but during last winter the diminished temperature was accompanied by sudden changes which proved more than usually disadvantageous to those prone to ailments of the respiratory organs. I do not, however, think that on the whole we have very much to complain of. It will be seen that two deaths occurred during the winter from diphtheria, and as these were the first fatal cases, as far as I know, from this disease amongst foreigners at this port, I append a brief description of each.

I first saw A. B., æt 6 years, child of the master of a vessel, at five o'clock in the afternoon, and found him suffering from intense dyspnœa with hard throbbing pulse. On auscultation loud mucous râles were heard, as also a well marked cardiac bruit. The tonsils were much congested, and one or two patches of leathery membrane could be observed at the back of the pharynx.

In spite of all that was done he died in about 2 hours after I saw him, and 24 hours after the appearance of the first symptoms. His father told me that up to a short period prior to my seeing him, he had seemed to be suffering from a severe cold with more or less sore throat, but without alarming symptoms. He further informed me that about 2 years before he had suffered from a low fever at Singapore, that although he appeared to get strong and well, he would often while walking complain of breathlessness with palpitation, which however had never appeared serious enough to demand special attention. A postmortem revealed a large yellow fibrinous clot in the right ventricle, and signs of diphtheritic disease, not to a sufficient extent however to account of itself for the fatal result. Death was doubtless immediately due to the clot rendering the heart incapable of resisting even the comparatively slight impediment which the incipient disease had imposed through the obstructed respiration. That the formation of the clot either coincided with the fever or closely followed its abatement I think there can be little doubt—a contingency not improbable as shown by Richardson and others.

I was on the point of leaving the ship when my attention was called to another son, æt 9 years, complaining of sore throat. Examination revealed an early stage of diphtheria. He was immediately ordered a gargle containing one drachm of sulphurous acid to the ounce of water, and a mixture containing 20 minims of the tincture of perchloride of iron to each dose, to be taken every five hours. Auscultation showed no cardiac complication nor did any of the ulterior symptoms seem to point to such. On the following day the disease had developed itself more fully. With the exception of sponging out the pharynx with a strong solution of carbolic acid,* nothing was done beyond continuing the medicines ordered on the previous day. Next day the lad appeared less restless, and I was just going to conclude my visit when a cry of alarm from his father brought me once more to the bedside. I found the boy apparently dying from asphyxia, with livid countenance and turgid veins. As the immediate cause of obstruction was obviously the separation of a portion of membrane which was blocking up the trachea, I proceeded at once to perform tracheotomy, although it was doubtful whether life could be sustained sufficiently long. The operation was rendered more difficult by a rocking ship, a small cabin and only two nervous but willing sailors for assistants. As the knife entered the tube a perfect cast of the lower part of the trachea down to the bifurcation was violently blown out, and the little patient seemed to have been snatched from death. In a minute or two he was laughing, but although he lived 48 hours more and was apparently better, after this period symptoms of blood poisoning set in and he died suddenly on the third morning after the operation, and the fifth after my first seeing him.

* In an adult I believe I have seen the disease cut short by the application at an early stage of pure carbolic acid to the pharynx.

In this last case, though tracheotomy unhappily was not effective in averting the fatal result, the relief from great suffering was I believe sufficient inducement for its performance, even if certain and rapid death had not been inevitable in the event of the tube being allowed to remain unopened. Here laryngotomy was contra-indicated; but in some cases where the necessity for rapid section is urgent, I fancy it might be found most speedy and convenient even if only used as a temporary aid, the major operation being proceeded with more leisurely and with less trouble from the congested vessels, thus reduced if not quite brought to a normal condition. I should, with children, be rather inclined to an early performance of the former operation in well marked cases of diphtheria; and I believe that this step is advocated by Professor SPENCE of Edinburgh, who has had considerable experience as to the effect of tracheotomy in diphtheria,and whom I have seen on more than one occasion resort to it successfully. As to remedies I may mention that in other more fortunate cases I attributed the satisfactory result to stimulants, free and frequent internal administration of iron, and a liberal application of antiseptics in gargle and by sponge.

A few hours after the ship's arrival a Chinese passenger on board died suddenly; and from the description of the symptoms from which he suffered while at sea and those just preceding death I am strongly of opinion that diphtheria was the disease to which he succumbed.

NOSOLOGICAL RETURN FOR 1872-73.

A.—ZYMOTIC DISEASES.	APRIL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH
I. *Miasmatic Diseases:*—	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.
Intermittent Fever,	6	—	3	2	10	7	2	—	—	—	—	—
Variola,	—	—	—	—	—	—	—	—	—	2	—	—
Diarrhœa,	5	9	8	12	10	6	3	2	—	—	2	4
Dysentery,	—	—	7	9	10	3	5	—	—	—	—	—
Ophthalmia,	—	—	—	—	—	—	—	—	2	1	—	—
Carbuncle,	—	—	—	—	3	—	—	—	1	—	—	—
Continued Fever,	—	—	—	—	1	—	—	—	—	—	—	—
II. *Enthetic Diseases:*—												
Syphilis,	6	4	12	10	8	5	6	5	3	2	4	2
Iritis,	—	—	2	—	—	1	—	—	1	—	—	—
Gonorrhœa,	4	6	3	1	2	—	4	3	5	2	—	1
Bubo,	3	1	1	6	4	—	—	2	—	1	—	1
Orchitis,	—	2	—	3	—	—	—	2	—	6	—	—
Stricture,	—	—	—	—	1	—	—	—	1	—	—	—
III. *Dietic Diseases:*—												
Intemperance,	—	—	—	1	—	—	—	1	—	1	—	—
IV. *Parasitic Diseases:*—												
Ringworm, (Chinese,)	—	2	1	—	4	—	—	—	3	—	—	1
Tape Worm,	2	—	—	3	—	—	—	2	—	—	1	—
Oxyuris Vermicularis,	—	—	2	—	—	1	—	1	—	—	—	1
B.—CONSTITUTIONAL DISEASES.												
I. *Diathetic Diseases:*—												
Gout,	—	—	—	—	—	—	—	1	—	—	—	—
Rheumatism,	4	—	—	—	1	—	—	—	—	5	—	—
Asthma,	—	—	—	1	—	—	—	1	—	—	—	—
II. *Tubercular Diseases:*—												
Phthisis Pulmonalis,	1*	1*	1*	1*	1*	1*	1*	1*	1*	—	—	—
Phthisis Abdominis,	—	—	—	1	1	—	—	—	—	—	—	—
C.—LOCAL DISEASES.												
I. *Diseases of the Nervous System:*—												
Cerebral Abscess,	—	—	—	1	—	—	—	—	—	—	—	—
Otitis,	—	—	—	1	—	—	2	—	—	—	—	—
Neuralgia,	—	1	—	2	1	—	—	—	2	—	1	—

* Same case all through these months.

	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
C.—Local Diseases.—*Continued.*												
II. *Diseases of Circulatory System:*—	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.
Varicose Veins,	—	—	—	—	1	—	—	1	—	—	—	—
Abdominal Aortic Aneurism,	—	—	—	1*	1*	—	—	—	—	—	—	—
III. *Diseases of Respiratory System:*—												
Bronchitis,	1	—	—	—	—	—	—	—	2	1	—	—
Diphtheria,	—	—	—	—	—	—	—	—	—	2	—	—
IV. *Diseases of Digestive System:*—												
Dyspepsia,	2	1	3	6	8	9	2	1	3	1	—	—
Colic,	—	—	1	—	2	—	—	3	—	—	1	—
Hepatitis,	—	1	2	4	3	6	—	—	1	—	—	—
Gastritis,	—	—	—	1	—	—	—	—	—	—	—	—
Piles,	—	—	4	—	—	8	—	2	—	3	1	—
Cirrhosis (Liver),	—	—	1	—	—	1	—	—	—	—	—	—
Enteritis,	—	—	1	—	—	—	—	—	—	—	—	—
Fistula in Ano,	—	—	—	1	—	1	—	—	—	1	—	—
V. *Diseases of Urinary System:*—												
Cystitis,	—	—	—	—	—	—	1	—	1	—	—	—
VIII. *Diseases of Integumentary System:*—												
Frost Bite,	—	—	—	—	—	—	—	3	1	—	2	—
Eczema,	—	—	1	—	2	—	2	—	4	—	1	—
Whitlow,	2	1	2	3	1	1	4	3	5	2	1	—
Abscess,	1	—	—	—	2	—	—	4	—	1	—	—
IX. *Diseases of the Eye:*—												
Pannus,	—	—	1	—	2	—	1	—	—	1	—	—
D.—Developmental Diseases.												
II. *of Women:*—												
Leucorrhœa,	—	1	—	1	2	3	3	—	—	4	1	—
Menorrhagia,	1	—	—	1	—	2	4	—	—	1	—	1
Amenorrhœa,	1	—	—	—	2	1	2	—	1	—	—	—
E.—Lesions from Violence tending to Sudden death.												
I. *Accident:*—												
Stab,	—	—	1	—	—	—	—	—	—	—	—	—
Incised Wound,	—	—	—	—	—	—	1	—	—	—	—	—
Contused Wounds,	—	—	—	1	—	2	—	—	1	—	1	—
Fractures,	—	—	2	—	—	1	—	—	—	1	—	—

At first sight it may strike the reader that the numbers tabulated under the respective diseases equal, and in some instances exceed those with which other and avowedly less healthy ports are accredited. I must at once point out that, with comparatively few exceptions, the cases coming under treatment in Chefoo either occur on board ship or are sent from other ports in order to convalesce. I possess a separate record of the ailments which arise in the port; but beyond noticing their triviality and paucity of number, I include them without remark in the general list, as it seems inadvisable to enter into particulars in view of the small foreign community resident here.

It will be seen that last year I had 30 cases of intermittent fever under treatment. With 3 exceptions all had their origin in Japan, Amoy, or Swatow. Of the others, two were sent up from Shanghai, and one arose here in a patient who had suffered elsewhere from fever two years previously.

* Same case.

Of Diarrhœa there were 59 cases, but this number must be understood to include very many slight attacks several of which broke out on board ship after the detestable water procured at this port had been taken in. It will be seen that we had the greatest number of cases in July.

Dysentery appeared in 34 cases, of which the greatest number occurred in July. Only in one instance, and that a patient who came here suffering from diarrhœa, can I localise the commencement of the attack in Chefoo.

Enthetic disease is as rife here as elsewhere. The means of infection are found here as well as at other places, and moreover crowds of victims are sent hither chiefly from Amoy, Swatow and Takow. The number of syphilitic cases thus amounted to 67, and under this heading I include only cases in which the constitutional effects were well marked.

Of *Gonorrhœa* I saw 31 cases which had their proportionate amount of sequelæ in bubo and orchitis.

I cannot join in the complaint which is so universal elsewhere in China, namely the prevalence of worms amongst children and adults. I do not know whether this immunity is only possessed by foreigners as I have scarcely any opportunity of seeing native practice; but whether it be by good fortune or accident, I must record the remarkable comparative absence of these troublesome parasites. It may be interesting to state that the majority of my few cases occurred amongst adults.

Aortic Aneurism.—During last summer it will be seen that a case of this disease came under notice. The swelling perceptibly diminished under treatment with iodide of potassium and perfect rest; but since September I have lost sight of the patient, and can therefore only hope that this favourable aspect of affairs has continued.

Dyspepsia.—I saw 34 cases, and in every instance I was able to confirm the views as to classification and treatment advocated by Dr. Chambers of St. Mary's Hospital. I cannot speak too strongly of the effect of the mixture of quinine and strychnine with the nocturnal pill of aloes, myrrh and iron, in those cases of dyspepsia with loss of tone extending all along the alimentary canal, so frequently met with amongst foreigners in China.

In the foregoing table I have made no reference to obstetric practice, and perhaps it is unnecessary even now to do more than say how uniformly favourable convalescence after parturition is. Even in cases where the system has been subjected to considerable shock and exhaustion we have as yet, so far as I can learn, no fatal result after labour to record. That this is mainly due to climatic influences more than one case would seem to prove. In two years and a half 51 foreign births have taken place with no maternal death and but one instance (embryotomy) of infant mortality. Before passing from this subject I may mention a method of stimulating the uterus by artificial perineal pressure, first suggested by Dr. Wilson, Anatomical Demonstrator at the University of Cambridge, and communicated to me by Dr. Henderson of this port. Dr. Wilson's plan is, first with one finger, gradually increasing the number to three, to commence at the promontory of the sacrum and slowly but firmly to exert pressure on the subjacent parts until the tips of the fingers are nearly withdrawn from the orifice, the pressure being special as the fingers traverse the perineum. Dr. Wilson was first led to try this plan by observing the rapidity and intensity with which the uterine pains are increased on the head coming down on the perineum. I have followed this suggestion on two or three occasions and I have been fully satisfied with the result.

No *Epidemic* visited the port during the year.

General.—In my last report I made a brief allusion to the sulphur baths in the vicinity of this port, and I can now do little more than corroborate the statements then made. Their effect is most marked on many cutaneous diseases but especially on those of syphilitic and constitutional origin. Rheumatic patients are considerably benefitted, and I have noticed great improvement in those who, suffering from general debility, where an alterative and tonic system of treatment was indicated, have gone to bathe in the waters. That the effect is considerably aided by the country air and the temptations which the surrounding scenery holds forth for healthy exercise is very probable.

Holding so high an opinion of the virtue of these baths it will not be thought out of place to append a brief description of the place, the quarters to be obtained and other particulars likely to be interesting to intending tourists. For a great deal of this information I am indebted to two residents of Shanghai, as also to another gentlemen till lately a resident in Chefoo.

The bath is situated at a village called 湯泉龍 (Loong-Chuen-Tang) about 33 miles in an easterly direction from Yentai, the journey to which may be accomplished in mule-litters in about 11 hours, or in a much shorter time on horseback. The cost of conveyance there and back with a pack-donkey amounts to about $ 7. The accommodation is that of an ordinary Chinese inn, but I have been assured that the discomfort is by no means intolerable, and detracts little from one's appreciation of the beauties of the country, the charming walks, and the benefits of bathing. For the use of a room in which a party of two stayed, with water and a coolie to assist the servant, 300 cash per day was charged. I need scarcely say that it is absolutely necessary to go provided with bed and bedding and foreign stores. Eggs, fowls and Chinese bread are at all times to be procured, and on Tuesdays, the market days, fish and other delicacies are to be obtained. 1,000 cash per day may be reckoned as the outside cost of living at the springs; and as the Mexican dollar only changes there for 1,000 cash and in Yentai for 1,200 or 1,300 it would be advisable for tourists to take a stock of "bamboo cash" sufficient for the trip. The proprietor of one of the inns 茂永 Yung Mow, has promised (if a Chinese promise is worth anything) to prepare two rooms for foreign visitors and completely partition them off from the celestial abodes.

The road, after crossing the hills at the back of Yentai, lies across a long and not very interesting plain, and it is not until within a few miles of the village that the wild mountain scenery, glens bedecked with beautiful verdure, and mountain streams rushing down flower-covered ravines meet the eye of the traveller. The proximity of the bath makes itself known at some little distance from the village, where the sulphurous odours can be distinctly perceived. The bath is about 10 feet long by 8 feet broad and about 3 feet deep. It is said to empty itself once in every 10 muintes. Whilst in it or close to it the sulphuretted hydrogen smell before alluded to is very marked, but this one does not mind after a while. The great drawback to its use is the crowd of native bathers in daily attendance; but with care hours may be found when the bath is clear. Should persons wish to drink the water they must collect it in the quietude of night after the bath has had time to empty itself frequently; and the best method of drawing it is to immerse a corked bottle well under the surface at the east end of the spring, uncork and allow it to fill, recorking it well previous to withdrawal. The bath is walled round and covered by a roof supported by four brick pillars so as to admit free currents of air.

Besides the walks, one may enjoy visits to the plantations of scrub-oak where the pongee-producing worms are fed, and to a beautifully situated temple in the vicinity where presides, they say, the god of healing. The tourist will have proudly pointed out to him as proof of the salubrity of the place, four generations of a family, viz., great-grandfather 87 years, grandfather 55 years, sons 20 and 25, and great-grandchildren respectively 7 years and 5 years; and in many other ways health and recreation may be obtained from the country and its inhabitants. I may further mention that donkeys can be readily hired, so that those excursionists who eschew walking from choice or inability had best go provided with saddlery.

The following particulars may prove interesting:—

The temperature of the bath varies from 110° through 112° to 119° (I give the statements of different authorities), and if used for a longer period than 5 minutes a feeling of giddiness (sometimes syncope) followed by nausea is induced. Should it be taken at a shorter interval than 3 hours after meals unpleasant consequences sometimes follow. The following were the effects on their vascular systems experienced by two gentlemen. One is a strong athletic man in perfect health; the other does not possess so robust a frame and had been ailing for some time. I call them respectively Y and Z.

Y's pulse before going into bath 76 }
Z's " " " " " 71 } Morning.

Temperature of bath 110°

After 7 minutes in bath—
Y's pulse was (5 minutes after coming out) 108
Z's „ „ „ „ „ „ 118
Y's pulse before going into bath 76 } Night.
Z's „ „ „ „ „ 73 }
After 10 minutes in bath—
Y's pulse was on coming out 104
Z's „ „ „ „ 134
Pulses fell in 10 minutes after coming out—
Y's to 84 beats.
Z's „ 102 „

It will thus be seen that persons suffering from debility complicated with marked cardiac affection should abstain from bathing, or at any rate should exercise great discretion.

Before passing from this subject I should state that there are other baths situated at a village called I-San-Tang 湯山艾 in a north-westerly direction from Chefoo, distant about 50 miles. The waters are reputed by the Chinese to be possessed of even greater virtues than those of the other, and foreigners who have been there seem to lean towards this opinion. But on account of some misunderstanding which took place three years ago between the natives and a party of foreigners, the former have ever since stoutly set their faces against visitors, and do all they can to prevent them coming by making it as uncomfortable as possible, putting prohibitive prices on accommodation, &c. &c. I have therefore been able to gather but few particulars of the place, but I trust that a conciliatory policy may yet procure permission for people to visit these springs.

At I-San-Tang there are four or five baths, one of which is situated in a room and kept more or less private. This bath-room is continuous with two others where, I am told, sleeping accommodation used to be provided. The temperature of the bath ranges as high as 124° F. The scenery and objects of interest are quite as tempting as those at Loong-Chuen-Tang. I have omitted to mention that all persons who have visited this last named place and with whom I have conversed agree in praising the uniform civility and hospitality they met with from the natives, as also their readiness to forward the wishes of their visitors. Whether this happy state of affairs can be brought about at I-San-Tang remains to be seen, but until it is the journey there would probably end in disappointment.

In conclusion I would suggest that parties visiting the east springs (Loong-Chuen-Tang) should take a bath-tub with them, as by this means they would be able to secure a bath at home more conveniently, and certainly with greater security from intrusion.

Table of Deaths occurring amongst Foreigners from April 1872 to March 1873.

Sex.	Disease.	No.	Remarks.
Male,	Cirrhosis of Liver,	1	Resident.
Female,	Enteritis,	1	Non-resident.
Male,	Cerebral and Cardiac,	1	„
„	Tuberculosis (abdominal),	1	„
„	Cardiac,	1	„
„	Diphtheria,	2	„
Female,	Phthisis,	1	Resident.
Male,	Small-pox,	2	Non-resident.
8 Males, 2 Females,		10	2 Residents and 8 Visitors.

Analysis of Mortality Table.—It will be seen from the above that but 2 deaths occurred amongst the members of the community proper, but that the unusually large number of 8 took place amongst those who visited Chefoo in pursuit of health or who formed part of the crews of vessels trading to the port.

The case of *Enteritis* apparently had its origin at Tientsin, the fatal result taking place but a few days after arrival here. It may be interesting to mention that both the patient and her friends attributed the disease to drinking freely of the water at that port.

The *Cerebral and Cardiac* case has been described in the last volume of these Reports, page 96.

Tuberculosis (abdominal). This case was one of very old standing, the patient having come up here as a final effort to conquer the diarrhœa which eventually carried him off. A curious occurrence took place a fortnight before his death. A complete claw of a crab was passed per anum while I was sitting in the room. The shell, though entire, bore traces of having been for some time subjected to the digestive processes. The patient himself and those who had been with him for more than a year were as much astonished at the circumstance as I was; and apart from the dislike which the patient happened to have to this and most other kinds of shell-fish, he and his friends were most positive in their affirmations that for at least 18 months he could by no possibility have touched a crab. From the very first I found him scrupulously particular as to his diet and punctilious in obeying all instructions. The diarrhœa though more or less persistent for the last 2 years of his life had come on with increased severity about 8 or 10 months before his death. It was impossible that the claw could have got accidentally into the vessel prior to use. The diarrhœa was neither lessened nor increased after the passage of this foreign body. There can be no doubt also that the primary cause of death was tuberculous deposit in the intestine—also present to some extent in the lung, but not sufficient to cause death—but whether the final result was materially hastened by the superadded irritation is a question which can now only be guessed at.

The *Cardiac case* was that of a Siamese sailor apparently quite well up to a few moments before death.

I have already alluded to the *Diphtheritic* cases.

The case of Phthisis was one of long standing.

The *Small-pox* cases occurred in two Sandwich Islanders, one of whom came here in his ship suffering from the disease which he communicated to his countryman. I can corroborate the statement made by some writers as to the fatal despair which comes over natives of these islands when attacked with even slight ailments. These poor fellows from the very first made up their minds that they were going to die, and nothing that could be said to or done for them seemed to have the slightest effect in changing their opinions.

I quite agree with Dr. Watson* in his ideas about quarantine; and in this instance soon after the vessel was found to be infected the men were removed to quarters prepared for them in a temple placed at the very extreme end of Knob Point about 3 miles from the settlement, and 1 mile from the nearest habitation. That we unconsciously and consciously come into close contact with persons actually suffering from the disease and with those who have just left others so affected, I fancy no one who has been long in China will deny, and I believe the comparative immunity enjoyed by foreigners, although exposed so often to the infection, is one of the highest tributes to the efficacy of vaccination. It is perhaps convenient to declare an infected vessel in quarantine while the sick are on board; but after these have been removed and the ship thoroughly ventilated and disinfected (say two days after their removal) I think it worse than unnecessary to refuse her pratique.

I have purposely abstained from dividing my periodical report into two six-monthly parts. I am thus able to hand in a report for the summer contrasted with the winter immediately following, when the community once more consists of permanent residents and those nautical visitors who are supposed to come here in good health. In this way I can draw up tables and statistics which by reason of their greater fulness are likely to be more valuable.

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* *Customs Medical Reports*, No. 4, p. 27.

C.—Dr. J. Frazer's Report on the Health of Tientsin for the half year ended 31st March, 1873.

The health of the foreign community was very good during the last half year. Only one death—a child with diphtheria—occurred amongst the community on shore. This was the first case of the kind seen amongst foreigners since the port was opened, but I understand that the disease is occasionally, but rarely, seen among the Chinese inhabitants.

Several deaths took place amongst the shipping in harbour, only two of which however presented any points of interest; one a case of acute dysentery, the other of rupture of the femoral artery.

1.—The case of *Acute Dysentery* occurred in the person of a steward belonging to one of the men of war. He was a man of broken down constitution, and had served previously on the West Coast of Africa, where he suffered from dysenteric diarrhœa. He was placed on the sick list on the 22nd of October, complaining of diarrhœa and continual and severe pain in the left iliac region; hot scalding sensation in the anus at each evacuation; constant nausea and aversion to food of any description; skin dry; pulse rapid and very feeble; tongue red and dry; evacuations frequent and profusely bloody; great anxiety of countenance. The treatment consisted in the administration of small doses of mercury with chalk and ipecacuanha powder every 3 hours, and the application of turpentine fomentations to the abdomen, followed by linseed poultices and sinapisms to the epigastrium.

23rd.—No change in the symptoms; complains of great fulness in the abdomen. A warm water enema was administered.

24th.—The evacuations still continuing profusely bloody and abominably fetid, it was evident that rapid disorganization of the large intestine was taking place. He was given stimulants, arrowroot, milk, &c., with acetate of lead and opium injections. Unfortunately the irritability of the stomach resisted all treatment but champagne and dilute hydrocyanic acid.

26th.—Collapse set in, and the bladder becoming paralysed had to be emptied by catheter. Death took place at noon. A postmortem examination was made 50 hours after death when the colon was found in a completely gangrenous state for several inches towards the rectum. Had the patient lived much longer perforation must have taken place. It is to be regretted that the excessive irritability of the stomach in this case hindered the ipecacuanha treatment from being carried out. I have given this case in full as being the only one of acute dysentery that has taken place here during the last 6 years. As a general rule cases of chronic dysentery and diarrhœa coming up here from the south are benefited by the change.

2.—A.B., aged 33, came under treatment December 19th 1872, with a large and diffused swelling occupying the upper part of the left popliteal space and middle, lower and inner part of the thigh. The tumour was hard and intensely painful, but no pulsation was perceptible in it. The limb was semi-flexed, and the knee joint immovable. The lower third of the thigh, and the leg and foot were œdematous. No pulsation could be felt in the femoral or tibial arteries. The patient's general condition was very bad; pulse 120, weak and compressible; entire loss of appetite; great emaciation. He stated that he had been under treatment at various times for several months both at Tientsin and Shanghai, suffering from œdema of both legs, caused, as was supposed, by some morbid condition of the veins of the limbs. He had also at one time a small non-pulsating tumour in the right popliteal space, which disappeared under a course of iodide of potassium. The œdematous condition of his limbs however never hindered him from performing his duties, which were of a very laborious kind, and his general health and strength continued as good as ever until November last, when during a gale of wind at sea in a small vessel, he was obliged to over-exert himself for some days. He then perceived a painful swelling in the lower and inner part of the left thigh, which increased rapidly in size for several days. There was no pulsation in it. He remained at Taku until December 18th, during which time he treated the swelling as a rheumatic affection, employing kerosine oil as an embrocation. A grain of

opium every 4 hours, a mixture containing iron and quinine, and a moderate allowance of stimulants were prescribed. The tumour was painted over with tincture of iodine, and the limb enveloped in a flannel bandage. The next morning he felt a good deal better, the opium having procured him a good night's rest.

23rd.—He complained of great pain in the tumour, extending into the knee joint and down the limb. The œdema of the foot and leg had somewhat increased and the tumour itself had become softer and more fluctuating. The skin also covering it had become inflamed. Warm fomentations were applied. He was now made aware of the difficulties attending the diagnosis of his case, and the introduction of a grooved needle was recommended, but was not assented to. The above line of treatment was continued until January 5th, when as the tumour appeared to be on the point of bursting an exploratory puncture was allowed. The swelling was found to contain a mixture of blood and grumous matter. Amputation was now offered as the only resource, but this the patient would not accede to. The operation was not pressed as the patient's condition was as bad as it could be, pulse 130, weak and compressible; constant nausea and hiccup. The swollen and œdematous condition of the limb extended to within a few inches of the hip joint. The leg and foot were cold and covered with bullæ. Stimulants and small doses of opium were freely prescribed. The limb was enveloped in a flannel bandage and a soft pad was placed over the most prominent portion of the tumour. No external hemorrhage took place, but the patient gradually sank from exhaustion within a few days. A postmortem examination disclosed a consolidated femoro-popliteal aneurism about the size of a hen's egg, with a complete rupture of the femoral artery about 4 inches above the aneurismal sac. The blood had become extravasated underneath the deep fascia, and entire destruction of the interior of the limb, to within a few inches of the hip-joint, was the result. The femoral artery throughout its entire length was in state of atheromatous degeneration.

The health of the foreign community was not affected by the inundation of 1871-72 although the natives suffered much from fevers of a remittent and intermittent type. The immunity of foreign residents is easily accounted for, the settlement being well raised and drained, and complete in all its sanitary arrangements.

Throughout the winter months the water supply of Tientsin is all that can be desired, but during the remaining portion of the year, the river being full of boats, it contains a certain proportion of sewage matter. Still it is not polluted to a dangerous extent, and if treated with alum and carefully filtered it is both palatable and wholesome.

Table of extreme temperatures and prevailing winds from 1st October 1872 to 31st March, 1873.*

Months.	Max.	Min.	Prevailing Winds.
October	75°	40°	N.W., N.E.
November	57°	22°	N.W., N.E.
December	50°	16°	S.W.
January	45°	17°	N.E., S.W.
February	52°	12°	S.W., N.E.
March	68°	20°	S.W.

* Thermometer in the shade facing the east.

D.—Dr. J. H. Mackenzie's Report on the Health of Ningpo for the half year ended 31st March, 1873.

It would be useless for me to attempt at present to give a report on the health of the native inhabitants of Ningpo, as my practice has been almost entirely confined to the foreign residents. My recent arrival here must also plead as an excuse for the shortness of this report.

Notwithstanding the very imperfect drainage of the settlement, and the great changeableness of the weather, there was remarkably little sickness among those under my care during the winter six months. The diseases most prevalent were diarrhœa and dyspepsia, but most of them were of a mild character and easily amenable to treatment. I saw only three cases of intermittent fever all of which yielded readily to the administration of quinine. I had but one case of dysentery, and this was treated with scruple doses of powdered ipecacuanha every four hours, with most satisfactory results. I have to record two deaths among foreigners, one from enteric fever, the other from disease of the heart. In the former case there was nothing worthy of special remark. The temperature rose to its highest—105°—on the twelfth day. The patient died on the twenty-sixth day being conscious all through his illness and up to a few hours of his death.

The annexed table shows the diseases which came under my notice from 1st October 1872 to 31st March 1873.

Diseases of Digestive Organs:—

Dyspepsia,	26 cases.
Diarrhœa,	15 ,,
Dysentery,	1 ,,
Constipation,	7 ,,
Hæmorrhoids,	3 ,,
Boils,	3 ,,
Lumbrici,	3 ,,
Cirrhosis,	1 ,,
Congestion of Liver,	3 ,,
Sore Throat,	6 ,,

Diseases of Respiratory Organs:—

Asthma,	2 ,,
Catarrh,	9 ,,
Emphysema,	1 ,,

Diseases of Circulatory System:—

Diseases of Heart,	2 ,,

Diseases of Generative and Urinary Organs:—

Gonorrhœa,	5 ,,
Chancre, (Soft)	1 ,,
Stricture of Urethra,	1 case.
Cystitis,	1 ,,
Leucorrhœa,	1 ,,
Menorrhagia,	1 ,,

Miasmatic Diseases:—

Intermittent Fever,	3 ,,
Enteric Fever,	1 ,,
Febricula,	11 ,,

Skin Diseases:—

Herpes,	2 ,,
Eczema,	1 ,,
Urticaria,	2 ,,

General Diseases:—

Hemiplegia,	1 ,,
Rheumatism	4 ,,
Conjunctivitis,	2 ,,
Otorrhœa,	1 ,,
Ebriositas,	3 ,,
Wounds and Contusions,	12 ,,

Captain Bake, the Harbour Master here, has kindly supplied me with the temperatures during the six months ending 31st March. I give the average of highest and lowest temperatures for each month.

	Highest.	Lowest.
October,	70.17	65.04
November,	58.26	47.15
December,	57.13	46.26
January,	42.24	36.08
February,	45.15	39.06
March,	52.28	43.23

E.—Dr. David Manson's Report on the Health of Takow and Taiwan-foo for the half year ended 31st March, 1873.

During the winter six months the health of the foreign community was good. In general we have to notice one or two cases of malarial disease, but during this winter there were none, either among residents or seamen. Dengue fever, so prevalent in Amoy during the autumn of 1872, made its first appearance in Formosa at Taiwan-foo on the 5th October, and within a few weeks almost the entire population of the capital had undergone the disease. It was believed at the time by the Chinese to have been imported from Amoy in the *Mary*, a vessel which arrived at Taiwan-foo from Amoy about that date. Several Chinese passengers suffering from the fever landed and took up their residence in the suburbs, and there the disease first broke out. At Takow, a village 25 miles to the southward of Taiwan-foo, the fever was at no time very prevalent, only a few cases occurring among the Chinese. In the country districts the ratio of presons attacked was also much smaller than in the capital. The few cases which I had the opportunity of observing at Takow differed in no respect from the Dengue as described in the Amoy report for the previous six months.* At Taiwan-foo two foreigners suffered from the fever, and in one case the rheumatic pains recurred for weeks and were very severe. At Takow no foreigner was attacked.

Amongst seamen an unusual amount of syphilitic disease prevailed during the six months. Almost all the vessels came from Amoy.

There was no death.

Table of Maximum, Minimum and Mean Temperature.

Month.	Highest.	Lowest.	Mean Highest.	Mean Lowest.
October,	87°	74°	83°	76°
November,	85°	66°	81°	69°
December,	83°	60°	76°	66°
January,	77°	55°	74°	57°
February,	80°	52°	78°	58°
March,	83°	61°	79°	63°

The rainfall for the whole year was unusually small.

In reporting on the health of the Chinese population during the six months I have to notice a considerable falling off in the number of cases treated, when compared with the number for the previous six months. This is to be attributed to the fact that malarial disease is much less prevalent during winter than in summer, and in a measure to the objection which the Chinese here seem to have to leave their dwellings during the cold weather. The number of deaths from remittent fever during last autumn may also have influenced the hospital attendance.

* *Customs Medical Reports* No. 4, page 12.

The following table shews the number and type of the cases of malarial fever treated at the Chinese hospital. For the sake of comparison I include the summer six months.

——	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	Total.
Intermittent :—													
Quotidian,	6	28	49	49	30	35	48	28	20	7	7	2	309
Tertian,	1	8	24	33	11	17	20	14	7	2	1	8	146
Quartan,	4	3	8	8	12	14	10	8	15	4	10	12	108
Remittent,	2	10	35	38	14	19	18	11	5	1	—	2	155
Total,	13	49	116	128	67	85	96	61	47	14	18	24	718

Malarial fever was most prevalent during June, July, August, September and October—especially so in June and July, when the fever assumed more of the remittent and adynamic type with a tendency to dysentery during convalescence.

Small-pox was very prevalent not only on the coast but in the inland districts and among the aborigines who occupy the central and eastern parts of the island. On the occurrence of a case of small-pox I have been told that it is the custom among the aborigines for the friends and relatives to desert the infected house, leaving at the bedside of the sufferer sufficient food and water to last during the natural course of the disease. They say that sometimes the entire population of a village will on the occurrence of a case decamp en masse. Small-pox does not appear in the following table of diseases among natives, because no cases have been treated in hospital. A considerable number of persons have been vaccinated.

Diseases of Natives treated during the six months.

Malarial Fever,	260	cases.	
Dysentery,	15	,,	
Diarrhœa,	5	,,	
Ophthalmia,	5	,,	
Gonorrhœa,	6	,,	
Syphilitic Iritis,	1	,,	
Stricture,	2	,,	
Orchitis,	4	,,	
Syphilitic Rheumatism,	2	,,	
Primary Syphilis,	6	,,	
Secondary Syphilis,	16	,,	
Syphilitic Ulcers,	5	,,	
Gonorrhœal Ophthalmia,	13	,,	
Leprosy,	5	,,	
Bronchocele,	2	,,	
Lumbrici,	17	,,	
Scabies,	21	,,	
Ringworm,	8	,,	
Rheumatism, (Chronic)	56	,,	
Anæmia,	34	,,	
Asthma,	5	,,	
Cancer,	1	case.	
Phthisis Pulmonalis,	9	,,	
Scrofula,	2	,,	
Hysteria,	3	,,	
Epilepsy,	1	,,	
Sciatica,	1	,,	
Paralysis,	4	,,	
Valvular Disease of Heart,	2	,,	
Varicose Veins,	1	,,	
Chronic Bronchitis,	22	,,	
Emphysema,	3	,,	
Laryngitis,	2	,,	
Enlarged Spleen,	62	,,	
Dyspepsia,	26	,,	
Caries of Teeth,	9	,,	
Glossitis,	1	,,	
Piles,	5	,,	
Fistula in Ano,	3	,,	
Ascites,	10	,,	
Constipation,	2	,,	
Hernia,	1	,,	

Stricture of Œsophagus,	2	cases.	
Bright's Disease,	4	„	
Cystitis,	3	„	
Spermatorrhœa,	2	„	
Caries,	2	„	
Necrosis,	2	„	
Synovitis,	3	„	
Chronic Ulcer,	29	„	
Psoriasis,	1	„	
Impetigo,	1	„	
Eczema,	4	„	
Carbuncle,	1	„	
Abscess,	18	„	
Whitlow,	5	„	
Keloid,	1	„	
Amaurosis,	1	„	
Cataract,	4	cases.	
Corneitis,	1	„	
Cornea, Conical,	1	„	
„ Opacity of,	15	„	
„ Ulcer of,	13	„	
Chronic Conjunctivitis,	45	„	
Adhesions of the Iris,	3	„	
Entropium,	8	„	
Trichiasis,	15	„	
Pterygium,	6	„	
Glaucoma,	2	„	
Staphyloma,	1	„	
Amenorrhœa,	2	„	
Dysmenorrhœa,	2	„	
Lesions from Violence,	35	„	
Lesions from Punishment,	3	„	

During the twelve months 47 cases of phthisis pulmonalis have been treated. Probably more have presented themselves but only undoubted cases of phthisis have been returned as such. Here we have both malarial disease and tubercular disease of the lung very prevalent in the same district of country—718 cases of the former disease, or, including enlargement of the spleen, 928 cases having been observed in the twelve months.

In the table of diseases among natives I have mentioned three cases of "Lesions from Punishment." It is a form of paralysis of the arm acquired under the following circumstances. When a thief is discovered in the fact it is the custom for the mob to take the law into its own hands and at once administer punishment. The hands of the thief are bound behind his back, a stout cord with a running noose is placed round the arm about four inches below the axilla, and the culprit is slung up to the nearest tree or post and suspended there. The whole weight of the body is sustained by the cord and arm during such time as the mob may think necessary—10 to 30 minutes. The result is paralysis of the arm more or less complete, the peculiarity being that the great vessels escape injury entirely, only the nerves suffering. After some months the use of the arm is regained.

F.—Dr. A. G. Reid's Report on the Health of Hankow for the half year ended 31st March, 1873.

List of Cases treated during 1872 at the London Mission Dispensary or in the Hospital connected with it.

General Diseases:—
- Small-pox, 2
- Continued Fever, 27
- Febricula, 37
- Remittent Fever, 21
- Ague, 105
- Mumps, 9
- Whooping Cough, 3
- Erysipelas, 5
- Puerperal Fever, 2
- Syphilis, 146
- Lupus, 12
- Scirrhus, 2
- Medullary Cancer, 4
- Epithelial „ 2
- Rheumatism, 178
- Synovial Rheumatism, 13
- Lumbago, 37
- Elephantiasis Græcorum, 63
- Scrofulous Glands, 66
- „ Ophthalmia, 18
- Phthisis Pulmonalis, 88
- Rickets, 1
- Anæmia, 39
- General Dropsy, 22

Disease of the Nervous System:—
- Tubercular Meningitis, 1
- Apoplexy, 3
- Sunstroke, 2
- Hemiplegia, 15
- Paraplegia, 5
- Infantile Convulsions, 9
- Epilepsy, 12
- Neuralgia, 13
- Sciatica, 16
- Shaking Palsy, 1
- Locomotor Ataxy, 2
- Infantile Paralysis, 5
- Bell's Paralysis, 4
- Scrivener's Palsy, 1
- Anæsthesia, 3
- Spasm of Muscle, 4
- Chronic Mania, 1
- Idiotcy, 2
- Neuroma, 2

Diseases of the Eye:—
- Chronic Granular Conjunctivitis, 120
- Catarrhal Ophthalmia, 50
- Purulent Ophthalmia, 37
- Chronic Ophthalmia, 48
- Keratitis, 45
- Ulcer, 44
- Leucoma, 51
- Iritis and sequelæ, 22
- Sclerotitis, 7
- Choroiditis, 3
- Retinitis, 2
- Amaurosis, 4
- Glaucoma, 2
- Staphyloma, 12
- Lachrymal Abscess, 4
- Hordeolum, 9
- Entropium, 14
- Ectropium, 5
- Trichiasis, 34
- Tarsal Ophthalmia, 19
- Cysts of Lids, 7
- Strabismus, 3
- Muscæ Volitantes, 15
- Cataract, 3
- Short Sight, 4
- Nyctalopia, 1
- Pterygium, 34
- Destruction of Eye, 18

Diseases of the Ear:—
- Inflammation of Meatus, 16
- Accumulation of Wax, 2
- Polypus, 9
- Exostosis, 1
- Perforation of Tympanum, 5
- Disease of Mastoid Cells, 2
- Deafness, 17
- Ear-ache, 10
- Deaf Dumbness, 1
- Otorrhœa, 18

Diseases of the Nose:—
- Ozæna, 8
- Ulceration, 5
- Perforation of Septum, 4
- Epistaxis, 11
- Polypus, 7
- Perverted sense of smell, 5

Glands:—
- Hypertrophy of Lymphatics, 2
- Goitre, 1

Diseases of the Respiratory System:—
- Coryza, 21
- Ulceration of Epiglottis, 8
- Laryngeal Catarrh, 8
- Laryngitis, 13
- Polypus, 1
- Bronchial Catarrh, 76
- Bronchitis, 161
- Asthma, 27
- Pneumonia, 3
- Emphysema, 35
- Pleurisy, 8
- Empyema, 1
- Hydrothorax, 6

Diseases of the Digestive System:—
- Ulcer of Lips, 8
- Harelip, 5
- Stomatitis, 13
- Thrush, 11
- Cancrum Oris, 3
- Ranula, 2
- Abscess of Antrum, 1
- Disease of Dental Tissue, 28
- Gumboil, 7

Atrophy of Gums, . . 3
Necrosis of Alveoli, . . 3
Dentigerous Cyst, . . 1
Ulcers of Tongue, . . 12
Tongue Tie, ... 1
Ulcerated Throat, . . 18
Tonsillitis, ... 11
Enlarged Tonsils, . . 14
Perforation of Palate, . 9
Abscess of Pharynx, . . 2
Mercurial Ptyalism, . . 5
Stricture of Œsophagus, . 1
Dysphagia, . . . 3
Ulcer of Stomach, . . 2
Dyspepsia, . . . 136
Dysentery, ... 49
Diarrhœa, ... 61
Hernia Inguinal, . . . 18
„ Femoral, . . . 1
„ Umbilical, . . . 1
Constipation, ... 21
Colic, ... 15
Ulceration of Anus, . . 3
Fistula in Ano, . . . 17
Hæmorrhoids, ... 14
Prolapsus Ani, ... 4
Condyloma, ... 23
Pruritus Ani, ... 7
Hepatitis, ... 5
Abscess of Liver, . . . 1
Enlargement of Liver, . 6
Cirrhosis of Liver, . . 5
Jaundice, ... 7
Gall Stones, . . . 3
Enlarged Spleen, . . 43
Leucocythæmia, . . . 1
Ascites, ... 9
Tabes Mesenterica, . . 7

Diseases of the Urinary System:—

Albuminuria, . . . 8
Abscess, ... 1
Pyelitis, ... 5
Cystitis, ... 4
Calculus, ... 1
Abscess of Prostate, . . 1
Gonorrhœa, ... 27
Preputial Calculus, . . 1
Phymosis, ... 8
Paraphymosis, . . . 7
Bubo, ... 30
Epididymitis, . . . 5
Gleet, ... 11
Stricture, ... 2
Urinary Fistula, . . . 1

Diseases of the Generative System:—

Abscess of Penis, . . . 1
Hydrocele, ... 7
Hæmatocele, ... 1
Varicocele, ... 5
Orchitis, ... 3
Fungus Testis, . . . 3
Spermatorrhœa, . . . 27
Impotence, ... 2
Pelvic Cellulitis, . . . 1
Ovarian Dropsy, . . . 3
Leucorrhœa, ... 25
Amenorrhœa, . . . 4
Dysmenorrhœa, . . . 11
Sinus of Breast, . . . 3
Abscess of Breast, . . . 5

Diseases of Organs of Locomotion:—

Osteitis, ... 20
Caries, ... 13
Necrosis, ... 6
Spontaneous Fracture, . 1
Exostosis, ... 2
Cyst of Bone, ... 1
Contraction of Palmar Fascia, 1
Bursal Abscess, . . . 10
Ganglion, ... 2
Chronic Synovitis, . . 16
Ulceration of Cartilages, . 9
Anchylosis, ... 5
Psoas Abscess, ... 4
Curvature of Spine, . . 5
Contraction of Tendons, . 3
Club Foot, ... 1
Abscess of Cellular Tissue, 39

Diseases of the Cutaneous System:—

Erythema, ... 5
Intertrigo, ... 9
Roseola, ... 2
Urticaria, ... 3
Prurigo, ... 35
Lichen, ... 28
Psoriasis, ... 2
Herpes, ... 7
Eczema, ... 54
Impetigo, ... 22
Rupia, ... 7
Ecthyma, ... 15
Leucoderma, ... 2
Frostbite, ... 3
Ulcer, ... 112
Gangrene of Feet, . . . 1
Boils, ... 25
Carbuncle, ... 4
Onychia, ... 6
Whitlow, ... 21
Elephantiasis Arabum, . 2
Fibro-cellular Tumour, . 8
Fatty Tumour, . . . 5
Cystic „ . . . 7
Warts, ... 4
Nævus, ... 5
Ingrown Nail, ... 11
Tinea Tonsurans, . . . 12
Favus, ... 10
Erythema Marginatum, . 28
Pityriasis Versicolor, . 15
Scabies, ... 221

Poisons:—

Opium Smoking, . . 30
Snake Bite, ... 1

Local Injuries:—

Cephalæmatoma, . . . 1
Scalp Wound, . . . 3
Fracture of Cranium, . 2
Dislocation of Jaw, . 2
Injury of Eye, . . . 4
Cut Throat, ... 1
Fracture of Sternum, . 1
Fracture of Ribs, . . 3
Sprains, ... 10
Bruises, ... 21
Fracture of Clavicle, . . 2
„ „ Humerus, . 1
„ „ Leg, . . 1
Dislocation of Elbow Joint, 3
Dislocation of Shoulder Joint, 2
Ununited Fracture, . 1
Burns and Scalds, . . 5
Wounds, ... 8
Amputations, . . . 2

Parotitis was the only type of epidemic disease recognised among the patients attending the London Mission Dispensary during the past six months. The specimens met with were of a mild character, and no instances of metastasis were seen; the temperature never ranged over 102.4°, and the febrile symptoms vanished after three or four days, leaving the patients only inconvenienced by the parotid swelling. As the disease is one not usually attended or followed by serious indications, few applicants came to the dispensary for relief, but the mild nature of the epidemic was evident in a number of cases met with at the Roman Catholic Orphanage, where 40 children and one adult were attacked.

Since the date of last report 2 deaths have occurred among the foreign residents, one, a child, from pneumonia supervening on convalescence from dysentery, the other an adult from hydrophobia. Examples of the latter disease are fortunately rare, and as the fatal termination was in this case more rapid than usual, an account of it will be of interest. A young native dog rushed into R. L's room on December 15th. While attempting to secure it, he was bitten a little above the wrist on the unprotected forearm. He however captured the dog and kept it for some days in his bedroom along with two other dogs, a monkey, and a spotted cat. At the time when he was bitten, he thought nothing of it, but came two days afterwards to have it cauterised, when nitrate of silver was freely applied. After this the wound healed up and was forgotten. On the 1st February, the patient complained of great lassitude, prostration and nausea without febrile signs, due, he suggested, to an over indulgence two days previously. Next morning the nausea continued, vomiting had occurred once or twice during the night, the tongue was covered with a thick creamy fur, pulse 84, full and bounding, but there were no indications pointing to the dreadful event about to follow. On revisiting the patient at 4 P.M., he informed me that during the past two hours he had frequently but in vain attempted to swallow cold water. On renewing the effort in my presence, it brought on severe spasm of the muscles of the pharynx, and the water was rejected. There was also an increased secretion of saliva, and the cicatrix had acquired a reddish tint, but there was no pain in it or in the nerves of the arm. Morphia was now injected subcutaneously, and cold water enemata were administered in hope of soothing the burning thirst. 9 P.M., intense thirst, which was momentarily relieved by the patient succeeding in swallowing teaspoonfuls of ice. He failed in three out of four efforts, but eagerly demanded permission to renew the attempt, and each time threw himself back exhausted by the struggle. The secretions from the mouth had become viscid and were hawked about in all directions, so that it was difficult to avoid them; occasional delirium set in, the eyes were brilliant, pupils dilated, skin bedewed with cold perspiration, intense spasms of pharynx and diaphragm, and forcible drawing in of the lower ribs; there were also considerable difficulty in respiration and articulation, hoarseness of voice, and a haggard, anxious look. An enema of one drachm of chloral was administered and retained. Vomiting, which had more or less continued throughout the day, now became frequent, and small quantities of a dark grumous liquid were brought up. The spasms in the throat and diaphragm, and the troublesome secretion of the mouth increased till midnight. After this great prostration set in, and the patient became much quieter, lying apparently insensible with eyes widely open and pupils dilated. About 4.30 he again became excited and jumped out of bed, but was carried back, when he died of exhaustion. The skin felt cold throughout, and was covered with sweat, but the constant movements of the patient rendered observations of the temperature impossible after 9 P.M., up to which hour it did not exceed 99°.

Postmortem examination displayed intense congestion of the lungs and abdominal viscera; the heart was contracted, not distended as in death from asphyxia. Permission was declined to open the cranium and spinal canal, which is much to be regretted as the symptoms pointed so distinctly to serious lesion of the upper part of the cord and medulla.

The dog which bit the patient, as well as the monkey and cat, all died with nervous symptoms within a fortnight of the date of the bite, and the two dogs which had likewise been kept in the same room with it, exhibited symptoms of excitement and were destroyed. I had no knowledge of these circumstances until after the fatal symptoms had set in, the patient having treated his wound with great indifference.

Rabies is known not to depend on the ill usage to which dogs may be subjected, otherwise it would be ever present among the half starved mangy curs which fight for garbage in the lanes of the city. I caused

enquiry to be made, and myself interrogated several native doctors on the question of the existence of rabies in the city. They all seemed to have heard of it in certain bygone years; but two men on whom reliance may be placed stated that they had seen several mad dogs during the past winter, and knew of one child and an adult who had died of hydrophobia.

In TROUSSEAU's *Clinique Médicale*,* a prescription is given from a Chinese work as a cure for hydrophobia, and it may be interesting to know more of the drugs which the Chinese employ in this complaint. For many years a large reward has been offered in Europe to the discoverer of an antidote to the poison of rabies, but no one has as yet claimed the prize.

In the *E-tsung-king-këen* 鑑金宗醫 it is stated:—"The dog inhales poisonous emanations and "these penetrating to the five viscera produce rabies. The man who has been bitten by a mad dog has "three chances of dying to one of living. *Treatment.*—Immediately after having been bitten, scratch the "wound freely with a knife till it bleeds plenteously, likewise suck and wash it. Then take a walnut-shell, "scoop out the contents and fill it with human fæces, lay this on the place which has been bitten, and cover "it over with a moxa made of artemisia. Ignite and renew the moxa a hundred times if necessary, until "the walnut-shell has been burnt black, and the contents thoroughly dried. Then remove it and cover the "wound with the *Yuh-tsin-san*, 散貞玉 mixed with saliva. Repeat the whole of this local treatment "during the second, fourth and fifth days. Internally give the *Foo-wei-san* 散危扶 until hæmaturia is "produced along with pain in micturition, whereupon administer the *Hoo-peh-peih-yuh-san* 散玉碧珀琥, "which will alleviate the latter symptom. On the top of the head there will be found a red hair which is "to be extracted.

"*Second method.*—Take the curd of the black pea dried and pulverised, mix it with hemp oil and "form it into a large ball, roll this over the wound for some time, then break it open, and inside it will "present a hair-like appearance. Continue the rolling until on breaking open the ball, it is found to have "lost the hair-like aspect. The patient must for the future avoid eating dog's flesh or silk-worms, and he "must not drink wine or inhale the fragrance from hemp, for 100 days. Neither can he eat with safety "diseased meat or anything in a state of decomposition, and he must sleep apart from his wife for 100 "days. He must daily partake of plum kernels. When the poison of the dog has entered the heart of the "victim, and has produced feelings of misery and wretchedness, the belly swells up and there is an abundant "secretion of saliva; it is then proper to try the effect of the skull, teeth and toes of the tiger ground up "and given in $\frac{1}{3}$ oz. doses in wine. If a speedy cure does not follow, the person becomes mad, barks like a "dog, the eyes are white and glaring, and death soon ensues.

"*Third method.*—Take a winecup and fill it with wine, boil the contents in the cup and pour them "out. While the cup is hot press it over the wound and as it cools it will draw out the impure blood. "Repeat this operation until black blood ceases to flow."

The *Yuh-tsin-san* consists of:—

Orris root,	$\frac{1}{10}$ oz.
Arum pentaphyllum,	$\frac{1}{10}$ „
Peh-fuh-tsze, (Aroideæ),	$\frac{1}{10}$ „
Urtica tuberosa,	$\frac{1}{10}$ „
Angelica,	$\frac{1}{10}$ „
Libanotis,	$\frac{1}{10}$ „

Grind into a powder and moisten.

* Chez les Chinois, la formule suivante était regardée comme *infaillible*:—

Musc,	16 grammes.
Cinabre natif,	ââ 20 „
Cinabre factice,	

On réduisait ces substances en poudre impalpable, on les mêlait, puis on les administrait dans une cuillerée d'alcool de riz. Au bout de deux ou trois heures survenaient un doux sommeil et une abondante transpiration; sinon, on répétait la dose, et la guérison était considérée comme certaine. *Clinique Médicale*, t. ii. p. 438.

Foo-wei-san :—

Cantharides,	1	fly.
A yellow soft earth,	1	oz.
Realgar,	$\frac{1}{10}$	,,
Musk,	$\frac{1}{50}$	,,

Take $\frac{1}{10}$ oz. dissolved in a cup of wine for a dose. Repeat the dose three times a day. Add one Spanish fly for every day that has transpired since the bite, up to the seventh day, but on the tenth day and afterwards, add ten flies to the mixture.

Hoo-peh-peih-yuh-san :—

Yellow earth,	6	oz.
Liquorice,	1	,,
Amber,	$\frac{1}{2}$	,,
Indigo,	$\frac{1}{12}$	,,

Mix and pulverise. Take $\frac{1}{3}$ oz. dissolved in water in which the rush has been boiled.

In the *Wai-ko-ta-tsin* 成大科外 it is stated that rabies arises from a poisonous emanation which when it enters the heart makes the tongue hang out, when it penetrates the bowels renders the eyes dull, when it goes to the spleen induces an abundant secretion of saliva, and when it affects the lungs renders the animal incapable of barking. If it be determined to the kidneys, the animal forcibly drags its tail between the legs.

"*Treatment.*—Immediately after receipt of the bite take the *Kew-sin-san* 散生救, which will expel "the poison through the urinary organs, and for 100 days the patient must not smell hemp or eat curd "made from the red bean. If the cure be slow and the poison not readily expelled, the belly swells "up, the voice becomes like the bark of a dog, and the eyes brilliant and white. Under these latter "circumstances, a fatal result is likely to ensue. While taking the above-mentioned remedy internally, use "the *Chuy-fung-yuh-sin-san* 散聖玉風追 mixed with wine, as a local application; cover it over with oiled "paper and a bandage, change three times a day. Look for a red hair on the top of the head and "extract it."

Kew-sin-san contains :—

Cantharides, without head, legs, or wings,	7	
Carbonate of lead,	$\frac{1}{10}$	oz.

If followed by pain in micturition, drink plenty of the infusion of liquorice root.

Chuy-fung-yuh-sin-san contains :—

Heteropa asaroides,	1	oz.
Libanotis,	1	,,
Aconitum sinense,	1	,,
Peppermint,	1	,,
Aconitum,	1	,,
Levisticum,	1	,,
Orris root,	1	,,
Atractylodes rubra,	1	,,
Realgar,	$\frac{2}{5}$	,,

"*Second method.*—Take one handful of rush pith and $1\frac{1}{2}$ oz. of black peas, infuse in boiling water "and drink along with the before-mentioned *Kew-sin-san*. Locally, mix up equal parts of pangolin scales, "cantharides and artemisia. Take a piece about the size of a walnut, and after covering the wound with "a slice of garlic, place the remedy over it, and ignite, then wash the wound, and use the *Yuh-tsin-san*. "If a cure is likely to ensue, no matter ought to form.

"*Third method.*—If the wound reopens take $\frac{1}{50}$ oz. of realgar and $\frac{1}{50}$ oz. of musk, grind them up, and "drink in wine. After having drunk this draught, the patient rests and must not be disturbed till he "awakens spontaneously. If the urine is red and bloody, continue with the medicine.

"*Fourth method.*—Take one nux vomica seed, rub it in water till it has dissolved, and drink the solution."

In the *Se-yuen-luh* 錄寃洗 the following prescriptions are recommended:—

"Take seven Spanish flies without the heads, legs or wings, and mix them with the contents of "two eggs in a basin; place the basin in a covered utensil filled with water, and boil till the eggs are cooked; "withdraw the flies and eat the eggs. In the urine will be found red strings of blood which contain the "poison. If there should be pain in the belly, repeat the dose.

"*Second method.*—Mix cantharides with the best rice, and cook the mixture until the rice becomes of "a brownish tint, withdraw the flies, grind up the rice and eat it along with eggs till there appear strings "of blood in the urine.

"*Third method.*—Wash the bite with water from a clear mountain stream and drink the freshly "expressed juice of the ginger root. Carefully wrap up the wound so as to protect it from the wind.

"*Fourth method.*—

Libanotis,	1 oz.
Arum pentaphyllum,	1 „

"Moisten with water and dry. Repeat the process seven successive times, then grind into a powder. Take "$\frac{1}{10}$ oz. twice a day, which will produce perspiration.

In the *Yen-fan-sin-pëen* 編新方驗, a recent work, it is stated that there is an aggravation of the symptoms every seventh day, and that on these occasions the patient feels cold and shivers as if exposed to a strong breeze; he takes to his bed and wraps up the head. If perchance, three weeks pass by without the onset of these symptoms, there is every prospect of the disease being curable. The directions for treatment are, first, to look for and extract a red hair which will be found on the vertex; then, to wash the wound with cold tea in an unexposed situation, cover it with boiled white of egg, and over this apply the moxa four times. The spot from which the red hair has been extracted is to be covered with almond paste, and a cupful of the juice of the shallot is to be drunk every seventh day during 49 days. For 100 days the patient must not smoke tobacco, or drink vinegar, and for one year he must not eat pork or fish, drink wine or share the marital couch. Throughout life he must eschew dog's flesh, silk worms and red bean curd. The prognosis given is that of three persons bitten by a mad dog in one day, only one will recover. Cantharides is not to be prescribed on account of its poisonous properties and producing pain in micturition.

"*Second method.*—Drink the juice of a certain plant, which will produce purging and expel the "poison in the form of streaks of blood. This remedy is useful at any stage of the disorder. The plant "should be grown in a pot, the leaves fully matured, 8 or 9 inches long and 2 inches broad." Further on it is stated that persons treated with cantharides must be kept quiet for 100 days, and that if during that time the sufferer hears the sound of a gong or the report of firearms, rabies is certain to ensue, as the dog is frightened by such noises. It is better to adopt the hygiene before alluded to and take the following remedy:—

Tin, filed to dust,	$\frac{3}{10}$ oz.
Bisulphide of arsenic, broken into pieces,	$\frac{3}{10}$ „
Liquorice root,	$\frac{3}{10}$ „
Lamp rush,	one
Nux vomica seeds,	10

Macerate in river water.

Or the verbena officinalis may be infused with the scirpus tuberosus and taken as a ptisan; or instead of these, the root bark of the barberry in like manner may be used. Tobacco oil is also spoken of

as a certain remedy, provided the person bitten does not taste it hot and acrid, as is sometimes the case with sufferers from rabies. Frogs are likewise recommended to be eaten during the period of sickness, the wound to be covered with the entrails freshly exposed, and the application changed daily.

In the *King-nëen-lëang-fang* 方眞驗經, it is recommended to cover the wound with the bark of the sophora Japonica, to surround this with a deep ring made of flour paste, to fill up the ring with human fæces covered with another slice of the bark, and over all to apply the moxa, repeating the burning 15 times, which will be succeeded by free perspiration. Or a mixture of half an ounce of the bisulphide of arsenic with 100 bruised almonds may be applied to the wound and also taken internally in doses of one-fifth of an ounce. Along with the latter, a preparation of tigers' bones boiled in wine should be drunk. Another local application recommended is the root of the cercis siliqua mixed with brown sugar, and internally an infusion of the root of the plum tree.

In the *Ts'ëen-kin-yih-fang* 方翼金千 it is recommended to burn the wound with the moxa once a day for 100 days, and to eat large quantities of almonds. In the *Pen-tsaou-kang-muh* 目綱草本 various local remedies are given, for example balm leaves ground into a powder; the leaves of the rehmannia mixed with rice, formed into a cake and laid over the wound; castor oil seeds ground and applied, the bite having been first cleansed with an infusion of tobacco leaves; a mixture of penny-wort and realgar; the sulphate of iron; equal parts of hair and tenrec quills burnt, and the dust used. Internally, cantharides with rice, and a species of serpent dried and pulverised are considered efficacious.

In the foregoing extracts from Chinese medical works, the necessity of immediately destroying the poison left in the wound by the bite of a rabid dog is carefully inculcated. The method by the moxa is effectual, although unnecessary and filthy adjuncts are combined with it. Among the internal remedies it is curious to note the reliance placed on large doses of cantharides. The same drug was at one time credited in European medicine with certain virtues in the treatment of hydrophobia, as will be seen on referring to STELLE's *Therapeutics*, page 382, (Philadelphia, 3rd edition), where the following paragraph occurs:—"A large number of authorities assert the power of cantharides to cure hydrophobia, and their "assertions have been undeservedly discredited by those who supposed the disease just named to be always "identical with rabies canina. Hydrophobia is, indeed, an almost constant symptom of rabies, but it is not "uniformly so. It occurs quite frequently in various hysterical, nervous, febrile and organic affections. The "recorded cures of this affection by cantharides do not throw much light upon the nature of those forms of "disease to which the remedy is applicable. The greater number of writers who like WICHMANN and RUST, "have vaunted the anti-hydrophobic powers of cantharides, found their favourable opinion, so far as canine "hydrophobia is concerned, upon the prophylactic virtues of the medicine. So fallacious a test is unworthy "of serious consideration." It is exactly this test that the Chinese apply to the drug, for they fail to recognise that only a proportion of those bitten show symptoms of rabies. The chances of escape are given in AITKEN's *Science and Practice of Medicine* as three to two. In this latter work, some of the other drugs employed by the Chinese are also mentioned as having been unsuccessfully used in European medicine, for example, iron, lead, musk, tobacco and strychnine.

The accompanying sketches were taken from a child presented to the Sisters of Charity by the parents, as it was useless to them, on account of the deformity of both hands. So far as I am aware, they represent a very rare type of malformation, and there is a want of symmetry in the members, there being one thumb more on the right, and one additional little finger on the life hand. The web stretching between the thumb and forefinger, and between the latter and the middle finger is wider, and admits of much freer lateral movement than can be effected between the other fingers. Of the two thumbs, which on either hand are perfect, and spring from the metacarpal bone, the inner ones are articulated with the lateral aspect of the joint. The third thumb of the right hand and the sixth left digit are phalangeal appendages. The power of grasping is strongly developed. The feet are normal. It will be possible to divide the looser webs, so as to enable the child when it grows up to sew.

LEFL DORSAL SURFACE.

RIGHT DORSAL SURFACE.

LEFT PALMAR SURFACE.

RIGHT PALMAR SURFACE.

G.—Dr. J. R. Somerville's Report on the Health of Foochow (Pagoda Anchorage) for the half year ended 31st March, 1873.

I.—Meteorology.

For the reasons stated in my last Report I am still unable to give a Meteorological Table. The following observations taken at the Custom House give a broad idea of temperature and barometric pressure for the six months; but, as the instruments are faulty and the correctness of the night observations is not vouched for, it would not serve any good purpose to generalise from them.

Abstract of Meteorological Record kept at the Custom House, Pagoda Anchorage, for the six months ended 31st March, 1873.

MONTH.	Barometer at Noon.	Thermometer at Noon.	Barometer at Midnight.	Thermometer at Midnight.	Highest Range of Thermometer.	Lowest Range of Thermometer.	Prevailing Wind.	Hours of Rain.
	in.	o	in.	o	o	o		
October,	30.17	69.7	30.12	69.8	78	64	N. E.	23
November,	30.29	61.93	30.28	60.6	74	53	N. E.	36
December,	30.25	60.40	30.23	57.8	66	45	N. E., 1 day S. W.	41
January,	30.27	49.30	30.31	47.4	65	41	N. E., 7 days S. W.	44
February,	30.27	51.60	30.27	49.9	66	41	N. E., 2 days W.	18
March,	30.25	53.30	30.23	52.9	72	45	N. E., 7 days W.	117

II.—Diseases.

Nosological Return for the half year ended 31st March, 1873.

DISEASES.	1872.			1873.			Total.	Died.	REMARKS.
	October.	November.	December.	January.	February.	March.			
I.—General Diseases.									
Section A:—									
Typhoid Fever,	—	3	—	1	—	—	4	—	
Intermittent Fever,	1	—	1	—	—	1	3	—	
Febricula,	3	1	—	—	—	—	4	—	
II.—General Diseases.									
Section B:—									
Rheumatism,	1	4	—	—	—	1	6	—	
Syphilis,—Primary,	3	2	2	2	—	—	9	—	
„ Secondary,	2	1	2	—	—	1	6	—	
Scurvy,	—	1	—	—	—	—	1	—	
Phthisis Pulmonalis,	—	1	—	—	—	—	1	—	Imported.
III.—Diseases of the Nervous System and Special Senses.									
Ophthalmia,	3	—	2	—	—	—	5	—	
Otitis,	1	—	—	—	—	—	1	—	
IV.—Diseases of the Circulatory System.									
Diseases of the Heart:—									
Functional,	1	—	—	—	—	—	1	—	Attacks of syncope.
Organic,	—	—	—	1	1	—	2	2	

DISEASES.	1872.			1873.			TOTAL.	DIED.	REMARKS.
	OCTOBER.	NOVEMBER.	DECEMBER.	JANUARY.	FEBRUARY.	MARCH.			
V. & VI.—DISEASES OF THE ABSORBENT SYSTEM.									
Hydrocele,	—	—	—	—	—	1	1	—	
VII.—DISEASES OF THE RESPIRATORY SYSTEM.									
Catarrh,	Numerous cases in Dec. & Jan.						—	—	
Bronchitis,	2	1	1	—	—	1	5	—	
Pleurisy,	—	—	—	—	1	—	1	—	
VIII.—DISEASES OF THE DIGESTIVE SYSTEM.									
Boils,	5	—	—	—	—	—	5	—	
Dyspepsia,	2	2	—	1	—	1	6	—	
Dysentery,	—	—	1	—	—	—	1	—	
Diarrhœa,	3	3	2	—	—	1	9	—	
Constipation,	—	—	—	—	—	1	1	—	
Hæmorrhoids,	1	2	1	—	—	2	6	—	
Hernia,	—	—	1	—	—	—	1	—	
Worms,	—	—	—	—	—	1	1	—	
Hepatitis,	1	—	1	—	—	—	2	—	In one of the cases, much enlargement but no marked general symptoms.
Congestion of Liver,	1	—	—	—	—	—	1	—	
IX. & X.—DISEASES OF THE URINARY AND GENERATIVE SYSTEMS.									
Cystitis,	—	—	1	—	—	—	1	—	
Spermatorrhœa,	—	1	—	1	—	—	2	—	
Gonorrhœa,	3	4	6	1	1	1	16	—	
Stricture,	2	—	—	—	—	—	2	—	One a tight stricture after Holt's operation.
Orchitis,	—	1	—	1	1	—	3	—	
XII. & XIII.—DISEASES OF THE CELLULAR TISSUE AND CUTANEOUS SYSTEM.									
Ulcer,	—	—	—	1	—	1	2	—	
Condylomata,	1	—	—	—	—	—	1	—	
Chilblains,	—	—	—	1	—	—	1	—	
UNCLASSED.									
Delirium Tremens,	—	—	—	—	—	1	1	—	
WOUNDS AND INJURIES.									
Wounds,	1	—	2	3	—	—	6	—	
Fractures,	1	—	—	—	—	—	1	—	
TOTAL,	37	28	23	13	4	14	119	2	

Analysis of the Nosological Table.

(a.) General Remarks.—As is usual at the Anchorage during the six winter months, the cases were as a rule unimportant, so that, with the exception of diseases of the heart and typhoid fever, there is little in the Table that calls for remark. Many of the cases, especially those occurring afloat, were of so trivial a description that they would probably not have received medical advice, and therefore would not have been enumerated but for the system of attendance by contract prevailing in China. The mere number of cases recorded is therefore no sure criterion of the salubrity or the reverse of the locality. The death-rate is a safer guide, and this will be treated of farther on.

Including the shipping, and reducing this as nearly as possible to the condition of an average stationary population, these cases are taken from about 400 individuals.

The only deaths at the Anchorge during the six months were the two entered under organic disease of the heart.

(b.) Scurvy.—The patient was one of the crew of a German barque from Hamburgh to Foochow direct, 150 days out. There was no lime juice on board, and no fresh provisions were served out during the voyage, these not being required, as it appears, by German law. The patient presented the ordinary characters of the disease—blue line on gums, ecchymosed patches along tibia and on calves, muscular atrophy and general debility. Considering the length of the voyage and the absence of lime juice and fresh provisions and vegetables, it is strange that out of a company of 15 this was the only man affected. The mixture of cabbage and fennel seed known as *Sauerkraut* may have had something to do with the immunity enjoyed by the rest.

(c.) Enthetic Disease.—One of the cases is worthy of remark as illustrating a point in diagnosis. A chancre that I took from the first to be a soft sore, healed with considerable induration accompanied by glandular enlargement in the groin so like the non-suppurating bubo of hard chancre as to induce me to think I had mistaken the character of the sore in the first instance, and to put the patient under constitutional treatment. In a few days however the bubo showed signs of suppuration, was poulticed and opened, thus proving the non-infecting nature of the sore. Had the gland not suppurated, I should certainly have pronounced this an infecting chancre, (*vide* RICORD on Syphilis before the British Medical Association in *Lancet* of August 17th, 1872).

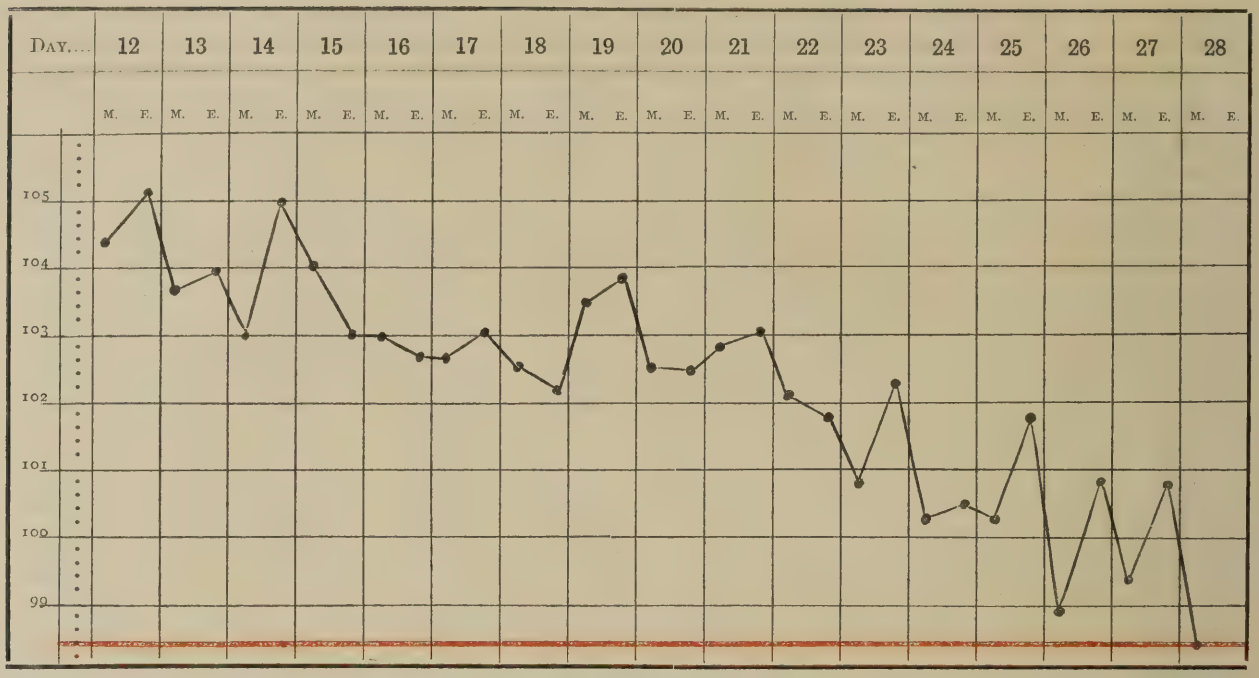
(d.) Wounds and Injuries.—One case was a gun-shot wound in a native, the hand being blown away at the wrist joint through inattention to sponging and stopping the vent of the gun while saluting. Amputation was performed through the middle of the forearm, and antiseptic dressings on LISTER'S method applied. There was no suppuration and no bad symptom, the wound uniting by first intention. I may mention that in my experience the Chinese make excellent surgical patients. They stand operations well, and recover from them readily. For the last four years I have been in the habit of using LISTER'S dressings in nearly all cases of operation and wound from accident, a method introduced to my notice by Dr. MYERS of Chefoo. From this experience I cannot speak too highly of the value of the method, and no doubt much of the success must be ascribed to it; but even during the old system of water dressings I used to notice how well surgical cases got on in natives. While speaking of antiseptic dressings I may notice a property of carbolic acid to which as far as I am aware little attention has been drawn, I mean its power of producing local anæsthesia. I have often been struck on visiting a patient next morning to find that he had suffered no pain from the time of dressing, and this in the case of extensive wounds. This property of the agent is apparent also to the dresser in the feeling of numbness and tingling he experiences in his fingers when a solution of 1 to 10 or even 1 to 20 is used.*

(e.) Typhoid Fever.—I note it as remarkable that we had 4 cases of typhoid fever during the six months. There had been no case at the Anchorge for over 3 years, and in 11 years' practice here I had seen only 7 or 8 cases altogether, before the present series. Of the 4 cases 3 occurred in my own practice, and I give the temperature charts of the two in which I had the opportunity of taking observations. The disease appeared first in the boatswain of a French vessel from Shanghai. The man had been ill for about 10 days before arrival here, and had contracted the fever in Shanghai. He was removed to hospital and the disease ran a normal course.

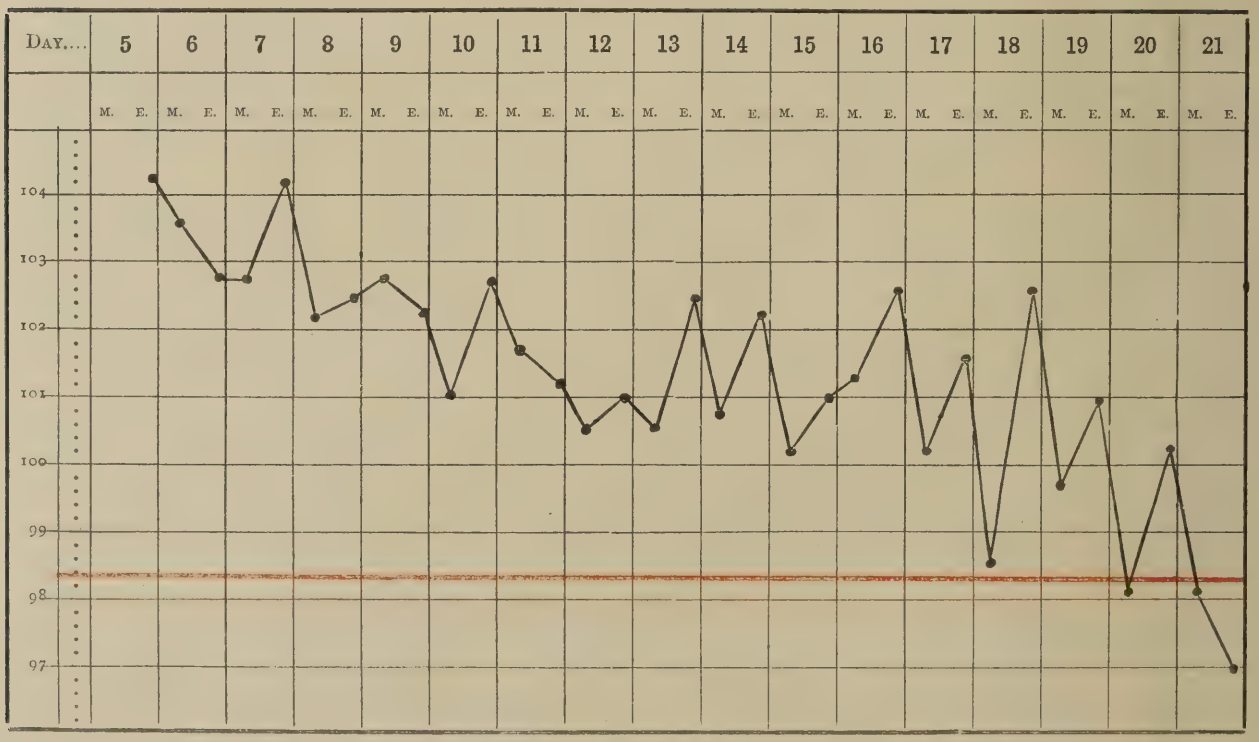
The second occurred in a girl aged 5, the third in a boy of $4\frac{1}{2}$, and the fourth in a girl of 3 years. In one of the cases I did not get observations till the 12th day, as was made out afterwards.

* In the *Journal of Cutaneous Medicine* for June 1870 Erasmus WILSON shewed the value of carbolic acid in producing local anæsthesia previous to the application of caustics to lupus and epithelioma. Surgeon BILL of the U. S. Army subsequently detailed in the *American Journal of Medical Science* for October 1870, the result of a curious and courageous experiment made on his own person, as well as several cases of incision of buboes, whitlows, &c., and other minor operations on his patients in which the anæsthetic action of carbolic acid was all that could be desired. Dr. BILL applies to the seat and neighbourhood of the proposed incision, a three per cent solution of the acid in warm water, for 15 minutes, and then draws a brush dipped in the concentrated acid over the line to be followed by the knife. It is sometimes necessary, should sensibility become apparent in the course of the operation, to brush out the wound with liquefied acid before extending the incision deeper. See BRAITHWAITE'S *Retrospect of Medicine*, vol. lxii, p. 382, and vol. lxiii, p. 171. R. A. J.

Case No. 3.



Case No. 4.



It will be observed that these records correspond pretty closely with the typical ranges found by WUNDERLICH and TRAUBE, and they show that the disease here runs much the same course as in other countries. No. 3 was a severe case, No. 4 a fairly mild one. The first patient was at the worst on the 17th and 18th days, after which the symptoms relaxed a little but there was much debility, and convalescence was established on the 26th day. In the other case the symptoms were most severe from the 10th to the 14th day, and the patient was convalescent on the 21st day. The disease did not repeat itself in either of these cases, and convalescence was coincident with the fall of the thermometer to normal. It is hardly necessary to remark on the value of the thermometer in this disease with reference alike to diagnosis, prognosis and treatment. All the cases were treated on the principles laid down by Sir William GULL, viz. few or no drugs, careful nursing, milk, soups and stimulants. His plan of keeping the rectum filled with thin starch was found to answer admirably in moderating the diarrhœa (Sir William GULL on Typhoid Fever in *Lancet* of 29th June 1872). On the interesting subject of contagion and the communication of typhoid, I would remark that there was no evidence of the fever having been communicated from one patient to another, and as there were only 4 cases altogether, the form must be set down as sporadic. There was first the patient in hospital at Mamoi, who sickened in Shanghai; next the girl, on Pagoda Island, a locality separated from the hospital by about a quarter of a mile of water; the third a boy resident at the top of Mamoi Hill, an unexceptionably healthy site; and the fourth occurred in a hulk in the harbour. Moreover the parents were in constant attendance on the little sufferers, and in at least one case the mother slept in the same bed with the child all through the disease. The only possible means of communication would be the river Min, the water of which we all use. I have already (*Customs Medical Reports*, No. 2, page 29,) stated my reasons for thinking this water wholesome for drinking and cooking purposes. The river at the Anchorge varies in breadth from 1,429 to 2,500 yards, and has a strong tidal ebb and flow. The average rise and fall at spring and neap tides is 13 feet. I have no means of calculating the volume of water borne on each tide, but it must be very great, and I think it extremely improbable that any excreta by chance finding their way into the river from one, two or three typhoid cases, attenuated as they would be to such a degree of dilution, could be capable of communicating the disease to another drinking the water. There is besides the positive evidence that the disease stopped at the fourth case. We have a mass of evidence favouring the view that the poison of typhoid is communicated through contaminated water, and I think that cases like the present, where no such mode of diffusion is probable, are deserving of record.

This leads me to a few remarks on general sanitary conditions as we find them existing in China, and I have to add my testimony to that of the other writers of these Reports as to the total disregard of anything like sanitary arrangements in the native quarters. The streets and houses are as described by Drs. MULLER and MANSON of Amoy (*Customs Medical Reports*, No. 2, page 11), with the addition that, wood being cheap here, the floors are made of that material. The planks are not dovetailed and therefore shrink, leaving intervals of a quarter of an inch or more between them. Dirt of all kinds finds its way through these chinks, and when a house is burnt or blown down the foundation is seen to be a mass of filth in a decomposing state. Our creeks differ only in degree (in the worst parts of the city they do not differ at all) from the San-t'sung described by Dr. WONG (*Customs Medical Reports*, No. 3, page 21). There is nothing like drainage, and the traffic in nightsoil, the formation of manure pits and the watering of fields with liquid ordure obtain here as elsewhere; in short we have all the generally recognised factors of zymotic disease with a high temperature to favour the fermentative and putrefactive processes. Yet we enjoy a high standard of health, and there has been no epidemic affecting foreigners at this port for at least 11 years.

I think the purpose of these Reports for the present is best served by collecting materials for future use. I therefore content myself with stating these facts, and refrain from generalising from them, more especially as the subject of sanitation is at this moment engaging the attention of our best authorities in all parts of the world.

(f.) Diseases of the Heart.—One of the fatal cases occurred at the Arsenal, and the other in my own practice. The latter patient died on his way home to England a day or two after leaving, but I think it

right to record his death as belonging to the Anchorge, because, as far as he could tell, the disease originated here. The case at the Arsenal was so sudden that the man was dead before the medical officer could reach him, and there was no autopsy. The deceased had not before had occasion to apply for advice, and in the absence of a postmortem examination Dr. POUJADE can only conjecture from the symptoms as detailed afterwards, and from some hurried words addressed by deceased to his friends just before death, that the result was due to "anémie cérébrale produite par l'oblitération des valvules aortiques par une embolie ou toute autre production morbide ayant son origine dans le ventricule gauche." In my case the patient was aged about 30 and had been resident 12 years in China; he had always been healthy until his last illness, was most abstemious in his habits and used to take exercise by shooting, &c., as often as his duties permitted. On the 10th February while out shooting he complained of feeling "short-winded", and found himself unable to undergo as usual the fatigue of walking through stiff clay and mud involved in a day's wildfowl shooting at this port. He had had the same kind of exercise at intervals during the winter without experiencing remarkable fatigue. He then began to lose flesh rapidly, complained of cough and great weakness, became incapable of exertion, and looked anxious, dusky, and anæmic. On examination, I found bronchial râles in both lungs, the right lobe of the liver much enlarged, and a prolonged bellows murmur accompanying the systole. The murmur was heard at the base and apex and along the sternum on the left side, a little intensified towards the base. Heart sounds abnormally distinct in nearly all parts of the chest. No evidence of hypertrophy on percussion; cardiac impulse moderately strong, certainly not feeble; radial pulse full, with a strong thrill. At no part could the murmur be said to be double, but at the base and apex it was prolonged into the second sound and obscured it. Patient suffered much from dyspnœa and insomnia. The little rest he could obtain was got in a sitting or semi-reclining posture. The urine contained no albumen but was loaded with lithates. Treatment was of no avail, the case getting rapidly worse, and in consultation we decided to send the patient home as the only chance, though a small one. He died on the way to Hongkong on the 10th April.

Considering the rapidly fatal nature of these two cases, and in the absence of postmortem examinations, it is obviously impossible to speak with certainty as to the particular forms of cardiac disease and especially as to the immediate causes of death. In view however of the fact, well ascertained in England, and indicated in China (as far at least as these Reports have gone as yet) that diseases of the heart in male adults are on the increase, I think any information however meagre on this class of disease is not without its value. It is useful to place the second case side by side with those reported by Dr. REID and Dr. SHEARER in which postmortem examinations were had (*Customs Medical Reports*, No. 3, pp. 44-45; No. 4, pp. 50-54). My case agrees with Dr. SHEARER's in the sudden onset of the symptoms in a man previously healthy, the rapid progress to death, and the enlargement of the right lobe of the liver, and differs in the points that my patient was a man of the most temperate habits, the murmur was single, and the cardiac impulse was moderately strong.

It is not improbable that mine also was a case of aneurism, but it rather reminds me of one of sudden death at the Anchorge some years ago, in which I had the opportunity of a postmortem. The man had not before complained of cardiac symptoms, but died one morning in a few minutes. On examination a fibrinous coagulum about the size of a small walnut was found attached to the wall of the left ventricle. Its free extremity encroached upon the mitral valves, but all the valves were healthy. In this case too the liver was enormously enlarged. The coagulum was distinguished from a postmortem formation, or one occurring just at the moment of dissolution, by being distinctly organised and continuous with the tissue of the endocardium. To apply this to my case is of course a mere hypothesis. I mention it chiefly in order to call attention to the desirability of obtaining, as often as possible, the cause of death in cardiac disease, and also to suggest the query whether these fibrinous formations are more common in China than at home, where they must be said to be rarely met with.

I do not think that this case can be quoted as an example of injury to the heart or great vessels from over-exertion in the enjoyment of field sports. The only evidence in favour of this view is the fact that the first symptoms (as far as we know) appeared while the deceased was on a shooting excursion; but

it is to be observed that he had undergone the same amount of fatigue many times during the winter, and there is no evidence of rupture or other sudden lesion of the heart or arteries occurring on that particular occasion. On the other hand, I have reason to attribute much of the health enjoyed at this port to the facts that our long cool season gives the residents the opportunity of taking exercise in many forms, and that they avail themselves very generally of these advantages. In saying this I must not be understood as recommending strong muscular exertion during the summer, or anything like over-training at any season. On the contrary, even when cool weather sets in, great caution should be observed in passing from the mild exercise appropriate to summer to the more severe forms of exertion found beneficial in winter. All writers on hygiene are agreed as to the value of properly regulated exercise as a means of health. The plainest and most conclusive evidence in its favour seems to me to be that a healthy subject experiences the benefit of exercise in his own case, and that anyone of ordinary intelligence can detect from his own sensations anything that passes the bounds of healthful exertion. Michel Lévy, (*Traité D'Hygiène*, vol. II., pp. 217-18) observes—"La sensation de la fatigue est le signal que donne la nature pour le repos; le sentiment de la réfection en "indique la mesure: ces deux limites sont mobiles comme les conditions d'organisation individuelle, variables "comme le régime, l'habitude, etc. Tel sybarite de cabinet sue à grosses gouttes à la première course qu'on "lui fait faire, et succombe à mi-chemin; huit jours d'exercice doublent ses forces et son haleine."

After describing the judicious system of training recommended by "Stonehenge," and followed by the best trainers in our days, Parkes remarks, (*Practical Hygiene*, pp. 348-49) "The result of this "training is apparently greatly to improve the health. The skin gets clear, the eye bright, the temper "cheerful; the movements of the body are easy and rapid; the breathing power of the lungs greatly "augments; there is little fat on the body; the muscles are firm and resistant, so that they are not so "easily bruised as usual, and injuries are sooner recovered from."

It is known that, even at home, high training cannot be kept up except for a limited period, and I do not think it ought to be attempted in China at all. Anyone, however, can easily form for himself a good practical course of exercise according to the bent of his own tastes, and whether it be gymnastic exercises, games, or field sports is of little moment provided it be well regulated. This exercise will manifest its own good at the time, and place the individual in a better position to withstand the langour and enforced confinement of our short summer.

III. *Foreign Death-rate at the Anchorage, at the Arsenal and at Foochow.*

(1.) *Foreign Death-rate at the Anchorage for the 11 years ended 31st December, 1872.*—I am indebted to Captain Saunders, Mr. Glover and Mr. Sinclair for assistance in making out returns for the Anchorage. It is easy enough to get at the actual number of deaths for the period indicated. The interments in the cemetery, plus the cases of drowning in which the bodies have not been recovered, and the few buried in Foochow and elsewhere, give the total deaths. It is more difficult to estimate the average yearly population, this being principally a floating one and of course constantly changing. After a careful calculation, the details of which it is unnecessary to give, I have set it down at 610, and I believe this is very near the truth. The deaths from all causes during the 11 years were 124. This to a population of 610 gives a death-rate of 18 per thousand. It is unfortunately quite impossible to get at the cause of death in the great majority of these cases, no regular registration having been made. It is known, however, that 14 of these 124 were cases of drowning, 2 were shot, many died from other accidents, and not a few from a system of living that would have proved rapidly fatal in any climate. If we exclude the 14 cases of drowning alone, the deaths are reduced to 110, and the mortality to 16.2 per thousand. It is also to be remarked that in many instances the patients arrived at this port in a dying state from diseases contracted elsewhere, and this will more than counterbalance the number sent home on medical certificate, for which this locality is responsible.

I am well aware that the above figures cannot be taken as scientifically accurate. But whatever doubt there may be, I have been careful that the higher mortality should have the benefit of it, and that thus the death-rate should be over estimated rather than the reverse.

(2.) *Foreign Death-rate at the Arsenal*—M. GIQUEL, the director, has kindly given me the following list of the employés who died either here or on their way home, having been sent home on account of illness.

DEATHS.	OCCUPATION.	DISEASE.	DATE OF DEATH.	OBSERVATIONS.
1	Boiler-maker, ...	Phthisis,.....	— August, 1868,..	When *en route* to France.
1	Blacksmith, ...	„	16th „ 1868,..	At the Arsenal.
1	Foreman Pattern-maker,	„	18th „ 1868,..	At Swatow (when *en route* to France.)
1	Finisher, ...	Wound, followed by Tetanus,	11th October, 1868,..	At the Arsenal
1	Boiler-maker, ...	Phthisis,.....	— January, 1869,..	When *en route* to France.
1	Building Overseer, ...	Dysentery,.....	15th October, 1869,..	At the Arsenal.
1 (lady)	.....	„	8th „ 1870,..	„
1	Sail-maker, ...	Phthisis and Dysentery, ...	30th „ 1870,..	„
1	Boiler-maker, ...	Dysentery,.....	2nd November, 1870,..	„
1	Finisher, ...	Hepatic Abscess, ...	23rd December, 1870,..	„
1	Teacher, ...	Phthisis,.....	15th March, 1871,..	At Amoy (when *en route* to France.)
1	Accountant, ...	Malignant Fever, ...	13th August, 1872,..	At the Arsenal.
12				

Though taken from a small community, this record is valuable because each of the deaths has been vouched for by medical certificate, the population is determinate and the occupations are stated.

These are the deaths for the 5 years of the Arsenal's existence. The average yearly population is 74, and the employés, with the exception of about 6, are Frenchmen. All the deaths belong to the latter nationality. The deaths for the 5 years were 12, giving a death-rate of 32.4 to the thousand. Without explanation, this high mortality would convey an erroneous impression. Of the 12 deaths, 6 were cases of phthisis, and of these only one could be said to be of local origin, and two of the men arrived from France in a dying state. It is to be remarked, moreover, that the single case of local origin was "pneumonic phthisis," "catarrhal pneumonia with caseous infiltration," "phthisis galopante," or whatever may be the term fixed upon, a form pathologically and clinically distinct from what may be called for the present chronic phthisis, meaning that phthisis which is fatal independently of destruction of lung tissue. Of the latter variety I have never seen a case of local origin in a foreigner at this port. It is an interesting question how far climate bears on the production or development of one or other of these two distinct morbid states, and further observation in China on this point is much to be desired.

One of the deaths was from traumatic tetanus following a gun-shot wound; the remaining 5 from dysentery and hepatic abscess are undoubtedly to be referred to climatic causes. If we take out 5 of the 6 deaths from phthisis and the one from tetanus, for which the climate is in no way answerable, the mortality is reduced to 6 in 5 years, or 16.2 in the thousand.

(3.) *Foreign Death-rate of Foochow for the 11 years ended 31st December 1872.*—This record may also be taken as accurate, and I have to thank the Rev. W. W. HAWKINS and Dr. BEAUMONT for their kind assistance in enabling me to form it. The average yearly population during the period considered was 105. This is exclusive of the American missionaries whose statistics will follow.

Date.	Deaths.	Causes of Death.	Occupation.	Age.	Nationality.	Total Deaths for Year.	Death-rate for Year per 1,000.	REMARKS.
1862.								
October,.	1	Drowning,.....	Merchant, ...	22	German, .	—	—	Drowned in the Min.
,,	1	Dysentery,.....	Civil Engineer, ...	—	British,...	—	—	Arrived from Shanghai in a dying state.
Nov.,.....	1	,, ...	Engineer, ...	23	,, ...	—	—	
,, ...	1	,, ...	—	26	German, .	4	38.09	Arrived in a dying state.
1863.								
May, ...	1	Softening of Brain, ...	—	29	American,	—	—	Arrived in a dying state.
,, ...	1	Dysentery,.....	Lieut.-Com. R. N.	32	British,...	2	19.04	
1864.								
—	1	Bronchitis,.....	—	Infant, ...	British,...	—	—	
March,...	1	Abscess in Liver, ...	Boatswain R. N.,	32	,, ...	2	19.04	
1865.	None.							
1866.								
—	1	Apoplexy, ...	Clerk,.....	—	British,...	—	—	
—	1	Drowning,.....	,, ...	—	,, ...	—	—	Drowned in the Min.
—	1	Debility, ...	—	A few days,	,, ...	3	28.57	A premature birth.
1867.								
June,.....	1	Pneumonic Phthisis,...	2nd Mate, ...	23	British,...	—	—	
Sept., ...	1	Gangrene of Intestines,	—	$4\frac{1}{2}$	,, ...	2	19.04	
1868.								
—	1	Debility, ...	—	1 day,.....	British,...	—	—	
February	1	Injuries at great fire,	Carpenter, ...	42	,, ...	—	—	
July, ...	1	Dysentery,.....	—	4	,, ...	—	—	
August,..	1	,, ...	—	$1\frac{1}{2}$	,, ...	—	—	
Dec., ...	1	Puerperal Fever, ...	—	28	,, ...	5	47.61	
1869.	None.							
1870.								
—	1	Dysentery,.....	Merchant, ...	34	,, ...	1	9.61	
1871.								
January,.	1	Abscess of Brain, ...	Merchant, ...	21	,, ...	—	—	
—	1	Dysentery,.....	—	About 28,.	American,	—	—	
—	1	Bronchitis,.....	—	—	British,...	—	—	An infant.
—	1	,, ...	—	3 to 4 mos.	German, .	4	38.09	
1872.								
June, ...	1	Remittent Fever, ...	Merchant, ...	About 25,.	British,...	—	—	Arrived in a dying state.
Sept., ...	1	Abscess of Liver, ...	Clerk,.....	31	Canadian,	—	—	
,, ...	1	Injuries from explosion of a kerosine lamp.	—	32	British,...	—	—	
Nov., ...	1	Pernicious (remittent) Fever.	—	About 25,.	German, .	4	38.09	
Total,.	27						257.18	
		Average yearly Death-rate from all causes, per thousand, ...					23.38	

Of these 27 deaths from all causes, it will be seen that

2 are cases of drowning.

2 of accident.

4 arrived in a dying state.

5 occurred in infants under 1 year of whom 1 lived a few days, and another 1 day only.

If we exclude the 4 from drowning and accident only, the deaths for the 11 years are 23, and the mortality 19.91 or in round numbers, 20 per thousand, and if we deduct the infant of 1 day and the premature birth, it is further reduced to 18.18 per thousand.

The 4 cases received in a dying state will more than cover any sent away sick who may have died elsewhere.

I am indebted to the Rev. S. L. Baldwin for the following mortality returns of the American missionary community in Foochow.

Burials in the Mission Cemetery Foochow, January 1st, 1862, to December 31st, 1872.

American Methodist Episcopal Mission.

1864.—September 6th. Rev. C. R. M., native of Vermont, U. S. A., aged 29 years and 6 months. Died of cholera. Sick about 16 hours.

1864.—September 6th. L. A. M., born at Foochow, aged 1 year, 9 months and 20 days. Of cholera infantum.

1867.—December 4th. M. L. B., born at Foochow, aged 11 months and 4 days. Of cholera infantum. Sick 1 day.

1869.—August 30th. H. J. B., born at Foochow, aged 1 month and 9 days. Of bronchitis.

YEAR.	NUMBERS IN THE MISSION—1862 TO 1872.				TOTAL.
	ADULTS.	CHILDREN UNDER 5.	CHILDREN 5 TO 10.	CHILDREN 10 TO 15.	
1862,.....	12	4	4	1	21
1863,.....	14	7	3	2	26
1864,.....	12	7	4	2	25
1865,.....	8	4	2	3	17
1866,.....	12	7	3	3	25
1867,.....	12	8	3	3	26
1868,.....	11	6	1	—	18
1869,.....	5	5	2	—	12
1870,.....	3	2	1	—	6
1871,.....	5	1	2	—	8
1872,.....	6	1	2	—	9

American Board of Commissioners for Foreign Missions.

1864.—June 3rd. W. B., born at Amoy, aged 4 months and 19 days. Brought here sick from Amoy. Died of bronchitis.

1864.—August 7th. M. E. H., born at Foochow, aged 10 years, 4 months and 16 days. Dysentery.

1865.—August 16. G. U. W., born at Foochow, aged 10 months. Cholera infantum.

1870.—February 14th. A. S. W., born at Foochow, aged 4 days. Cause of death unknown.

Whole number of burials in the Mission Cemetery in the 11 years 1862–1872, (inclusive) 8. Adult, 1; children under one year, 5; between 1 and 2, 1; over 10, 1. The adult was born in America. The 7 Children were born in China.

It will be seen that of 100 adults in the Methodist Episcopal Mission for the 11 years, only 1 died, or 10 per thousand; of the 52 children under 5 years, 3 died = 57.69 per thousand, while among the 41 over 5 years there were no deaths. The numerical strength of the other mission is not stated.

The deaths were chiefly from diseases of the intestinal canal, but it is to be remarked that in the absence of a specific definition of "cholera infantum" it is impossible to tell whether this term has been applied to one or to several morbid conditions.

(4.) *General Remarks on the Vital Statistics.*—These returns show that the chief mortality is due to dysentery and diseases of the liver, while we are remarkably free from zymotic diseases. They indicate also a low death-rate at this port. It has long been my impression that the mortality among foreigners in China is much less than is popularly supposed, and these Reports, as far as they have gone at present, tend to prove this. (*Vide* for Shanghai, Dr. Jamieson in *Customs Medical Reports*, No. 3, p. 80, and Dr. Dudgeon for Peking in *Customs Medical Reports*, No. 4, pp. 34–35).

In conclusion, I do not think it is beyond my province to remark that this question has an important practical bearing on the subject of life assurance. If it be shown that the foreign death-rate in this country does not exceed that of our healthiest towns in England and Scotland, it follows that the large extra premium charged by nearly all the offices for residence in China is greatly out of proportion to the risk.

H.—Dr. James Watson's Report on the Health of Newchwang for the half year ended 31st March, 1872.

Last winter, although an ordinarily severe one, was late in its advent. There was no keen frost until the last third of December, and the roads which are usually frozen hard by the end of November were soft and muddy until the beginning of January, in consequence of the frequent occurrence of snow, and that to such an extent that the great winter traffic by cart was seriously interfered with. A distance which in ordinary winters could be easily overtaken in three or four days took as many as from ten to fourteen days.

The general health of foreign and Chinese residents during this period was unusually good. During October, November and December, slight attacks of catarrh were very frequent, but except in one instance no serious consequences followed. The exception was in the case of a little girl 2 years of age, who had suffered for more than eight months from slight but repeated colds, as evidenced by a nearly constant discharge from the eyes and nose. There was no marked disease of the lungs, but the child was feeble, and when the cold weather commenced she was insufficiently clad and lived in the same room (subject to extreme variation in temperature) night and day, with a sick father and brother and another child. The cubic content of this room was 3,150 feet, and the only entrance was through the kitchen, where all the food of the household of six persons was cooked. The air was thus vitiated, and in addition there were the emanations from the discharges of the two sick patients, one suffering from enlargement of the heart and pulmonary congestion, and the other from chronic diarrhœa. Under these circumstances the child suffered from an attack of bronchitis with acute inflammation of the larynx, and died on the 15th November after 36 hours illness. For an hour or two before death there were symptoms of croup, but careful examination failed to show any appearance of membrane. The case was treated by emetics of antimony and ipecacuanha, mild purgatives of grey powder, and counterirritation over the chest and throat in the first instance, but it became necessary to resort to a stimulant treatment, when brandy and ammonia were given. Throughout the illness I endeavoured to keep the air of the room moist by means of steam.

In a former Report* I mentioned the frequent occurrence during the winter of a severe and troublesome affection of the throat, characterised by a dry state of the mucous membrane at the back of the pharynx, and the subsequent appearance of a thin white membranous exudation which afterwards becomes yellowish and thick. During the last six months this affection in a modified form was frequently seen. The cases were invariably of a milder character then those before observed, and this change was due, I think, to the comparatively moist character of the climate during last winter. The frequent occurrence of snow not only very materially moderated the dryness of the atmosphere but altogether prevented local dust storms, which in ordinary winters follow every high wind. Thus two irritants, excessively dry air and fine gritty dust, were absent.

I have already given it as my opinion that the winter climate of this district is not suited for patients labouring under organic disease of the heart and lungs. I have had the correctness of this view impressed upon me while attending two patients during the past winter. One suffered from simple enlargement of the heart, associated with chronic bronchitis and asthma; the other from excessive enlargement of the heart with valvular disease. The first instance was that of a lady who arrived here last October. She had on several occasions suffered from inflammation of the lungs, and for many years chronic bronchitis had troubled her. Her pulse was rarely if ever below 100, and it often ranged between 110 and 130. On the 15th January last she was while under the influence of chloroform safely delivered of a son, and she made a fair, if not a complete, recovery. I hoped that after this event the pulse would have become slower, but it rather increased than diminished in rapidity. Unfortunately she was tempted by the fine

* *Customs Medical Reports*, No. 3, p. 16.

weather which we had in the latter part of February to venture out of doors and take a little exercise under the verandah. The sun was bright and strong, and the air felt warm, but it was not sufficiently so to heat the stones and brickwork of which the house was built. Feeling tired after walking a little, she sat down and got a chill. This exposure brought on an attack of acute bronchitis, associated with high fever. The fever after a few days ceased, but it induced great weakness, and from this date the lungs suffered greatly. Marked condensation and then cavities were discovered, and these increased in size in spite of constant counterirritation and the administration of nutritive food, wine and soothing medicaments. The ordinary course of acute phthisis was pursued, and on the 31st March the patient died.

The other case was that of a man aged 38 who during the last 18 months suffered from paralysis of the bladder, dysentery, remittent fever and rheumatism, but whose chief sufferings for the last 10 months were due to cardiac disease. The heart was very much enlarged, and both aortic and tricuspid valves were diseased. The lungs were condensed and there was pleuritic effusion on both sides but especially on the left. The lower limbs were also dropsical. Before the winter I urged him to leave the place, as just then many of the distressing symptoms were either in abeyance or much modified. Indeed at this time he was able to walk a little, but soon after the cold weather commenced, breathlessness, spasm of the heart, and sensations of suffocation returned, and at present (31st March), he is in constant apprehension of sudden death. Hæmoptysis very frequently occurs and if it continues must of itself soon cause death. The bleeding invariably gives relief for a few days, so much so that I am constantly entreated to bleed, but hitherto I have resisted the urgent demands of the patient and his wife. Altogether the case is a difficult one to treat. The pulse has been so rapid, rising occasionally to 140, and never falling below 120, that I have been tempted to administer aconite, antimony, and other drugs of like therapeutical effect, but they all seem to increase the weakness and accelerate the heart's action; while the more reasonable plan of administering dietic and medicinal stimulants proves equally unsatisfactory. Iodide of potassium for a considerable time lowered the pulse and relieved the breathing, but the stomach eventually refused to tolerate this drug, and for the last 3 months nothing has been done beyond checking hæmorrhage from the nose and mouth, relieving spasm of the heart and lungs by the administration of ammonia and spirit of chloroform, combating the dyspnœa by supporting the patient in a half sitting position, and diminishing effusion by the administration of diuretics. For the 3 weeks previous to the end of the quarter I carefully administered $\frac{1}{70}$th of a grain of digitaline every six hours, and the patient thought the drug relieved him. The inhalation of a little chloroform has frequently cut short a spasm which seemed on the point of producing suffocation.*

But for the unusually moist winter I think it very improbable that the former patient would have recovered from her confinement, and almost certain that the latter would have died some months ago. With a large heart pressing on the trachea, with a pulse ranging between 120 and 140, with considerable effusion into the chest and lungs, with the inability to keep the recumbent position for more than a few minutes at a time, and the consequent impossibility of obtaining sleep except by snatches, it seems wonderful that the last patient was able to live so long. In both cases, it was interesting to mark the relief obtained when the wind was from the south and the air moist from this cause and the evaporation of the snow. It becomes more and more evident to me that such cases—difficult to treat anywhere—require a moister and warmer climate than this province affords.

The accidents which I have treated during the period under review have as a rule been of a very ordinary nature and unworthy of special remark, with perhaps one exception, to which I will briefly refer.

* This man died on the 23rd April, a few hours after going on board a steamer in which he hoped to return to Europe. I here give the notes of the postmortem examination made on the 25th April :—

Rigor mortis almost past; body much wasted. *Thorax*:—There was a little fluid in the pericardium. The heart, examined *in situ*, was much enlarged. The tricuspid and aortic valves bore vegetations on their free borders, while on one of the valves of the pulmonary artery there were two cartilaginous masses on either side of the corpus Arantii, each of the size of a small pea. The lungs were infiltrated with fluid but otherwise healthy, while the pleural cavity on the right side was greatly distended with fluid, and that of the left side slightly so. The heart, cut away from its bloodvessels close to the valves, and after having the cavities washed out, weighed 22½ ounces.

The captain of a steamer who had gone up the river shooting with a friend on the 7th October was, while standing in the boat, accidentally struck in the left eye by a shot from his friend's gun. Three hours afterwards I found the conjunctiva projecting beyond the eyelids, and the eyeball embedded in the highly congested vascular membrane. Closer examination shewed a groove running from before, backwards and outwards in the sclerotic. Following up this channel for a considerable distance with a fine probe I was unable to detect any foreign body. In consequence of the great swelling and pain I was compelled to postpone the search for the shot. The shot had struck with so much force that the iris was ruptured from its attachment to the ciliary ligament, on the outer aspect of the eye, to the extent of about one eighth of an inch. It was also completely paralysed. The patient complained of acute neuralgic pain in the injured eye and orbit, and was quite blind upon that side. Cupping to the temple, the instillation of atropine, and subsequent blistering relieved the pain very much, but the swelling of the conjunctiva still continued considerable, and the neuralgia severe although lessened, while sight was all but totally extinguished in the injured eye when the sufferer was forced to leave this port for Yokohama. Meanwhile, as soon as the more acute symptoms had abated I prescribed large doses of iodide of potassium with the best results. On leaving, he was advised to keep to his darkened room as much as possible. When he arrived at Yokohama the eye was examined by two medical men who found the symptoms very much moderated. Vision had slightly improved, and the neuralgia was now more disagreeable than acutely painful. There was still a certain amount of swelling in the conjunctiva but the shot was out of reach. Indeed they concluded that it had made its escape after inflicting the injury described.

On the 6th November the patient returned to this port. Although the distressing symptoms described above were very much relieved, the iris was still paralysed, and the neuralgia very annoying. The conjunctiva was almost natural, but the rupture of the iris from the ciliary ligament was perceptible, the pupil was oval, and vision was nearly extinct. On palpating the eyeball through the lids, I thought I discovered well back on the ball a round tumour, but through the skin this felt so large that it could not be accounted for by the presence of a small pellet of metal such as I believed the shot to have been. On the following day (7th November) with the assistance of the chief officer, I managed to get the eyeball everted to a considerable extent, and thus brought the tumour into view. With some trouble I fixed the eye in this position, snipt off a piece of conjunctiva over the tumour, cut into the swelling in the sclerotic and very readily turned out a large iron shot, which was encysted in the sclerotic texture. The shot weighed exactly ten grains. When the eye was allowed to resume its natural position it was impossible to see where the cut had been made, and the cicatrix is only noticeable when the eyeball is largely everted.

The points of interest in this case are the following:—Immediately the shot was removed the neuralgia in the eye and orbit was cured; the sight rapidly became useful; the iris recovered from its paralysis; and although I have not seen the patient since he left this port last November, he has written to a friend here to say that his eyesight is as good as ever it was.

Table of extreme Temperatures and Barometrical Changes during the October to March half year.*

MONTH.	THERMOMETER.		BAROMETER.		REMARKS.
	Highest.	Lowest.	Highest.	Lowest.	
1872.			in.	in.	The cold weather during this period was compressed into a fewer number of weeks than is usual. The winter was thus later in beginning and sooner over than is customary. In the sun, some days about the end of February and in March were more like summer than winter days.
October,	70°	29°	30.52	30.00	
November,	59°	15°	30.68	30.00	
December,	49°	−2°	30.70	29.90	
1873.					
January,	34°	−2°	30.91	30.21	
February,	49°	−5°	30.74	29.71	
March,	60°	5°	30.52	29.78	

* The thermometer was hung under a verandah on the northern wall of the Custom House. The barometrical readings are taken from the instrument in the Harbour Master's office.

I.—Dr. Alexander JAMIESON's Report on the Health of Shanghai for the half year ended 31st March, 1873.

FOR the following meteorological table, with the observations which accompany it, I am indebted to Mr. C. DEIGHTON-BRAYSHER, Assistant Harbour Master.

MONTHS.	PREVAILING WINDS.	NUMBER OF GALES.	PLUVIOMETER.	HIGHEST RANGE OF BAROMETER.		LOWEST RANGE OF BAROMETER.		THERMOMETER IN THE SHADE.	
				Barometer.	Attached Thermometer.	Barometer.	Attached Thermometer.	MAX.	MIN.
			in.	in.	°	in.	°	°	°
October, ... 1872,	N.N.E.	0	0.67	30.43	62	30.10	76	85	51
November, ... ,,	N.W., N.N.W.	2	0.66	30.64	58	30.16	65	76	30
December, ... ,,	W.N.W.	1	0.65	30.64	48	30.05	56	67	28
January, ... 1873,	N.W., N.E.	4	—	30.55	38	29.70	39	57	25
February, ... ,,	N.W.	2	—	30.65	35	29.95	52	65	23
March, ... ,,	N.E., S.E.	0	—	30.45	53	30.00	58	64	33

The instrument from which the above barometrical observations were taken is a FORTIN's standard of $\frac{5}{10}$ in. bore, No. 287. It is placed on board the *Ngapuhi* about 16 feet above the river level.

The rise during the highest spring tides at this port is from 11 feet 6 inches to 12 feet.

With the exception of a register of 30.73 inches in December 1871, the maximum height reached by the mercury in the last quarter of any year since 1866 was attained in November and December 1872, viz. 30.64 inches. The maximum range of the thermometer in October 1872—85° F.—was the highest registered in the last quarter for many years.

On the 3rd January 1873 the barometer fell to 29.70 inches. At this time a storm of unusual violence and which lasted four days, passed over the district. Many lives were lost, and very considerable damage was done to native vessels.

In many respects the sanitary condition of the settlements and suburbs is constantly being improved. Drainage is gradually being made effective in spite of the obvious difficulties which hinder it. The level of the settlements must rise in course of time but the process is necessarily slow, and therefore there is still a long period to look forward to during which it will be desirable to have some system of flushing the sewers in order to supplement their very slight gradient. The Municipal Engineer believes that were floodgates placed at the outlets, and water retained in the main channels at high water to be allowed to run out at low water, the result would be disappointing while at the same time the sewers themselves would probably suffer. It would seem therefore that the only plan is to obtain a head of water which being turned into the sewers at their highest point would be of sufficient strength to wash them out without being of sufficient volume to fill them, and thus to exert hurtful pressure upon their walls. Some device of this kind will no doubt be adopted whenever it shall be found possible to provide Shanghai with water-works. Pending this, there is little to suggest as regards drainage which is not already in progress or in contemplation. The system is being rapidly extended (in Hongkew) and is being improved in various parts of the settlements. It is very desirable that wherever it is possible the outlets of the drains should be carried beyond low-water mark, as it is matter of daily observation that water coolies fill their buckets impartially at all states of the tide, and as frequently as not, take their supply of water out of the drain mouths.

With exceptions so trivial as to be unworthy of notice, the entire water supply of the settlements is derived from the river, the Soochow Creek and the Yang-king pang. Having regard to the carelessness of the coolies, as just noticed, the only reason why the residents generally escape the usual effects of drain-polluted water is that little if any nightsoil finds its way into the sewers. But a vast amount of putrefying organic matter is necessarily washed into them by every heavy shower of rain. Of this fact anybody may assure himself by visiting at any hour of the day the alleys of one of the native quarters, such as that which lies between the north ends of the Kiangse and Szechuen Roads. There is therefore very considerable organic pollution of the water supply, although fortunately the most dangerous element is for the most part absent. I have observed that even from the junks lying off the city, nightsoil is collected, probably imperfectly but still to such an extent as to limit materially fæcal contamination of the river water from this suspicious source.* From foreign ships in the river, however, all the human excreta are thrown into the water. An epidemic of dysentery, typhoid fever or diarrhœa among the shipping would therefore quickly tell upon the quality of the water supply. It is true that were even such water carefully precipitated, then filtered, subsequently boiled and finally refiltered through charcoal, there would be no danger to be apprehended from its use for drinking or culinary purposes. But it is practically impossible to secure such an amount of precaution, and in spite of the most careful efforts we frequently drink water merely precipitated with alum, and filtered sufficiently to remove visible impurities. This amounts to saying that we drink the river water in the same condition, so far as its most important impurities go, as that in which it is first collected. Insidious as the effects of using such water may be, they are none the less appreciable after the lapse of time. It is not improbable that, specific disease apart, the impurity of the water supply has as much to do with the nameless "seediness" which commonly prevails in Shanghai as have sun, malaria, and the often imprudent habits of living. But it is only during an epidemic, and especially during an epidemic among the shipping, that we should reasonably expect sudden, violent and easily traceable effects from the use of the river water. The transmission of disease by means of water forms the text of so many official reports and minute disquisitions at the hands of the recognised authorities upon the subject, and these writings are so generally known, that here it is only necessary to state that cholera, diarrhœa, dysentery, typhoid, and probably other diseases —but certainly these—are propagated among the healthy by means of water contaminated by the evacuations of sufferers.† Two points are important—that dilution is no measure of safety, for it is of the essence of organic germs, even when most sparsely diffused, to multiply indefinitely, and that the greater or less severity of a disease depends not upon the contagium but upon the soil in which it is planted. Hence the most highly diluted evacuations from the mildest conceivable case of typhoid fever or of the other diseases enumerated are as likely to give rise to the severest forms as to the mildest, should the germs they contain be transferred to a suitable soil. These considerations, although not then set forth at large, suggested the recommendation made a year ago in the Report on the Health of Shanghai (page 81) that masters of vessels should be compelled to send their men on shore as soon as symptoms of serious bowel derangement appear. It

* Everybody has seen Professor FRANKLAND'S analysis of Shanghai water and his comparison of it with water from various sources in Great Britain. I have every reason to believe that from some cause the water as it reached the laboratory was not in the same condition as when it left Shanghai. Be that as it may, the figures given by Professor FRANKLAND under the different heads of his tabular statement have never been explained, and must therefore be unintelligible to those who are unacquainted with the processes of water analysis. In estimating the "Sewage or Animal Contamination," average London sewage is taken as the standard. Every 10,000 parts of London sewage contains on an average one part of nitrogen in the form of nitrates and nitrites. Thus if a specimen of water were to contain one part of nitrogen in 100,000, it would be as though it were contaminated with $\frac{1}{10}$ of its weight of average London sewage. Hence to discover the "Previous Sewage Contamination", as referred to the London sewage standard, the weight of nitrogen present in 100,000 parts of water is multiplied by 10,000.

† "Diarrhœa or dysentery constantly affecting a community or returning periodically at certain times of the year, is far "more likely to be produced by bad water than by any other cause. A very sudden and localised outbreak of either typhoid "fever or cholera is almost certainly owing to the introduction of the poison by water." PARKES:—*Practical Hygiene*, "1st Ed., p. 63.

should be made lawful for all ships to be visited at uncertain times for the purpose of discovering evasions of the rule, and there should be a consular regulation under which such evasions might be punished. Any number of patients supplied by the vessels in port could be well and economically accommodated on shore, to the vast benefit of the sick who, while attended by the same physicians who would otherwise attend them on board, would be placed under greatly improved conditions as regards air and food. At the same time one source of danger to the health of the community would be stopped up. But inasmuch as precautions of this kind are never so successful as it is hoped they will turn out, they should be adopted merely as temporary expedients. A pure water supply is now our most pressing need from a sanitary point of view. Unluckily the slight interest which the discussion of various schemes for providing it seemed to have excited a few months ago, has quite died away.

The excellence of the roads surrounding the settlements, and the ease with which trips into the country are organised, render open air exercise on both a large and a small scale available for all sections of the community, female as well as male, children as well as adults. Full advantage is taken of these means of health, and all kinds of athletic exercises are practised to a greater or less extent by the majority of male adult foreigners. The rules of living, as I have before pointed out, though far from stringent, are yet not notoriously lax, yet there is hardly an individual among the foreign community who has not after a longer or shorter interval, but never a very long one, some residuum of undefinable seediness which disappears only after a change of climate. This residuum may not materially affect health in the present or seriously threaten it in the future, but it exists, and if it has no other effect it temporarily depresses bodily and consequently mental energy, or in other words diminishes the capacity for work. The majority of men in responsible positions work harder in Shanghai than they do in English cities, while the incidental means of relaxation and amusement are fewer and of a kind not so well calculated to relieve the daily strain. Hence, especially since of late longer residence than was before contemplated has become the rule, a summer excursion should enter whenever possible into the annual programme. An occasional resort to Chefoo or some similar watering-place will therefore for the future be rightly considered a necessity by those Shanghai residents who can afford to enjoy it.

However satisfactory the increasing value of land within the foreign limits must be to property owners, the rapid crowding of the settlements with native houses cannot but affect the sanitary condition. It must be allowed that such houses as have recently been erected are far better than those of older date; the subjacent ground is filled in and cannot furnish room for the pits of decomposing refuse which formerly underlay almost all the Chinese houses in the place.* The foundations are higher and there is therefore less danger of the lower floors being overflowed from the surface drains. These are important improvements, but the mere aggregation of houses inhabited by Chinese in the neighbourhood of foreigners promises badly for the health and comfort of the latter in coming years. That the process of native house building will nevertheless continue with increasing rapidity there can be little doubt, and the solution of the difficulty, so far as foreigners are concerned, will eventually be that while the settlement will still of necessity contain all the offices and places of public resort, private residences will spring up in far larger numbers than at present on the outlying roads, and everybody who is not forced to live in town will move to the country. Should a railway be run to Wusung, an attempt will certainly be made to raise land there sufficiently for the erection of villas. I can imagine no permanent alteration in the conditions of residence here likely to be so beneficial to the health of the community as the opportunity which would thus be afforded of enjoying all through summer a lower temperature than prevails in Shanghai, together with the invigorating breezes which, with much of the freshness of the sea upon them, are seldom unfelt at Wusung.

* The condition of London in the time of Erasmus is thus described:—"The streets are generally covered with clay "and rushes which sometimes remain undisturbed for twenty years, concealing a mass of filth not fit to mention, and exhaling "a vapour not wholesome for the human body. The floors of the houses generally are made of loam strewed with rushes "constantly put on fresh without disturbing the old, lying there in some cases for years, concealing fish bones, broken victuals "and other filth, and impregnated with the urine of dogs and men."

During the half year there were, as I gather from the Burial returns and the General Hospital records, 50 burials, distributed as follows through the months:—

Burial Return for the half year.

DISEASES.	October.	November.	December.	January.	February.	March.	Total.
Suicide,	1	—	—	—	—	—	1
Hepatic Abscess,	1*	—	1*	—	—	—	2
Brain Disease,	1	—	1*	—	1	1*	4
Drowned,	3	2	—	—	1	—	6
Aneurism,	1*	—	1*	*f* 1 *m* 1	—	1*	5
Dysentery,	1	—	—	1	—	—	2
Epilepsy,	1*	—	—	—	—	—	1
Infantile Cholera,	—	*f* 1†	1‡	—	—	—	2
Phthisis,	—	1*	—	—	—	1*	2
Typhoid Fever,	—	1*	—	1*	1*	1*	4
Cancer,	—	—	*f* 1	—	—	—*	1
Heart Disease,	—	—	1*	—	1	2	4
Bronchitis,	—	—	—	1*	1*	—	2
Tuberculosis,	—	—	—	2*	—	—	2
Exhaustion,	—	—	—	1*	—	—	1
Uræmia,	—	—	—	—	1*	—	1
Asthma,	—	—	—	—	1	—	1
Syphilis,	—	—	—	—	—	1*	1
Small-pox,	—	—	—	—	—	1*	1
Accident,	—	—	—	—	3§	1‖	4
Uncertified,	—	2	1	—	—	—	3
Total,	9	7	7	8	10	9	50

There may perhaps have been a few more, as the records of the Catholic Cemeteries are not very easily got at. The table calls for little remark. The amount of brain disease encountered in Shanghai has lately assumed formidable proportions and threatens to rival in importance the diseases of the circulatory system to which public attention has been powerfully attracted. Of the aneurisms, that fatal in October was brachio-cephalic in a man aged 35; that fatal in December was abdominal aortic in a man aged 33. Both those which caused death in January were abdominal aortic, one in a man aged 30, the other in a woman of the same age. The seat of the tumour in the case fatal in March is not mentioned. Dysentery appears within the last two years to have become less frequent and less fatal, but typhoid fever is rising into importance, and hepatic abscess, often doubtless secondary to dysentery, is not uncommon. The register of the General Hospital shews 4 admissions for typhoid during the 6 months; 11 for malarial fevers; 9 for dysentery; 6 for phthisis; 5 for heart disease; 4 for congestion and inflammation of the liver; 2 for suppurative hepatitis; 4 for small pox; 1 for sunstroke (in October); 1 for typhus; 3 for aneurism, and 19 for various venereal affections not including gonorrhœa and its sequelæ. The last item in the list certainly calls for some action at the hands either of the Municipal Councils or of the Governments whose men-of-war frequent the port. The total number of admissions of Europeans to the General Hospital for the period under review was 162, out of which 24 died, as in the annexed table:—

Causes of Death in General Hospital among Europeans during the six months.

Epilepsy, ... 1 death	Aneurism, ... 3 deaths	Phthisis, ... 2 deaths
Abscess of Liver, .. 2 „	Tuberculosis, ... 2 „	Typhoid, ... 4 „
Brain Disease, ... 2 „	Bronchitis, ... 2 „	Heart Disease, ... 3 „
Exhaustion, ... 1 „	Uræmia, ... 1 „	Small-pox, ... 1 „

One Malay died of dysentery. One man admitted on the 13th March with abscess of the liver died on the 1st June. This death does not appear in the above list.

* Deaths occurred in General Hospital. † Infant aged 11 months. ‡ Infant aged 4 months. § Fire at the Kiang-nan Arsenal. ‖ Carrige accident.

The health of the Customs staff was fairly good during the six months. One gentleman attached to the in-door staff suffered severely from acute rheumatism in the month of October. On the third day there was extreme præcordial distress, while the first sound of the heart was replaced by a prolonged soft bruit. The temperature ranged between 102° and 105° F. Constantly renewed sinapisms to the chest with 5 minim doses of the pharmacopœial tincture of aconite in combination with large doses of the iodide and bicarbonate of potash every three hours, produced a rapid amelioration of the cardiac symptoms. On the eighth day, the heart sounds having become normal, but all the large joints being still affected, a simple alkaline treatment was adopted, and by the twelfth day convalescence was established. Among the out-door staff, there were under treatment 2 cases of contusion, 2 of bronchitis, 1 of angioleucitis, 1 of severe bronchial catarrh, 1 of rubeola, 1 of intermittent fever, 1 of varicella, and one of specific sore throat, the sufferer from which has since been allowed to retire from the service with completely broken down health. I am glad to be able to state that with this exception and that of a few trivial and fugitive cases, venereal disease was unrepresented among the members of the Customs staff, all absences from duty being accounted for by causes completely out of the control of the officers. Among the English police there were 3 cases of small-pox (one fatal), 3 cases of bubo, 2 of febricula, and 1 case each of fever, neuralgia, anasarca, hæmorrhoids, dyspepsia, rheumatism, catarrh, impetigo and syphilis. Among the French police there were recorded 5 cases of bronchitis, 7 of gastric disturbance, 2 of epilepsy, 2 of rheumatism, 1 of brachio-cephalic aneurism (fatal), 1 of osteitis, 1 of intermittent fever, 1 of hepatitis and 1 of abscess. I abstain from the attempt to draw any numerical deductions from the statistics I have here brought together. The numbers are in fact so small that general conclusions of a reliable character cannot be made from them.

It may however be said with confidence that the risk to life is not inordinately great in Shanghai, and that in many respects health prospects here compare favourably with those enjoyed at other places in the east. We have no periodical epidemic such as those of typhus and small-pox which visit Yokohama in spring and winter respectively. Nor is the climate so fatal to child life as that of India;* indeed in some respects children in Shanghai would seem to be more favourably situated than children in Europe.† But two infants died during the winter six months, and this mortality must be regarded as extremely small when it is considered that the number of European children is very large in proportion to the adult population, and that there is a yearly increasing number of families whose circumstances are not such as to place every luxury or even every necessary within their reach. The children at the Eurasian school are conveniently

* A Calcutta correspondent of the *Pall Mall Gazette* writes as follows in a recent number of that paper:—"The most "painful feature of British rule in India is the sacrifice of English children which it yearly involves. Some startling statistics "have lately been published which show that in 1871 out of 11,000 soldier's children in India 40 per thousand were ill every "day throughout the year, and that upwards of 70 per thousand died. It is stated that one-third of the whole number of "European children in India die under six months old; that 85 per cent perish before they reach two years, and that out of 100 "infants born only 11 attain maturity. The popular idea of Anglo-Indian life is that of an armed adult community which "garrisons and rules over a conquered empire, and trades in its principal cities. As a matter of fact the first thing that strikes "a stranger is the absence of English child-life. On the other hand the most prominent feature in an Indian graveyard is the "number of children's graves. The little mounds cluster thickest and out of all proportion to the ratio of children to adults in "the barracks or in civil life. The burden of Indian existence falls with its most cruel weight upon the young. The human "suffering and loss of English life which the Indian Empire really costs Great Britain, takes place not in the trenches nor on "any battle field, but upon the white cots of English children where every day hundreds of poor little souls lie tossing with "fever. An adult soldier represents too much money to allow of his being subjected to any avoidable risk, and his life is "conserved on strictly financial grounds. But it is impossible to enter an Indian graveyard which forms so essentially one of "our insignia of Empire without thinking of the curse on the rebuilder of Jericho:—'He shall lay the foundation thereof in "'his first born, and in his youngest son shall he set up the gates of it'".

† In Manchester one infant in 5 dies during the first year of life, and one half of all infants born are dead soon after their fifth year. In Berlin one infant in 3 dies during the first year of life, and one half of all born are dead in 2½ years. One third of all the deaths at all ages in Berlin occur during the first year. The death-rate is heaviest in summer, and, just as in Shanghai, August proves the most fatal month. The average mortality is also higher for August than for any other month in the cities of New York and Chicago.

grouped for observation, and it may be presumed that they inherit a full share of whatever tendency to climatic disease attaches to foreigners rather than to natives. During the period under review there were 16 boarders in the school, but with the exception of an epidemic of measles which prevailed between the 4th of March and the 18th of April there was no case of illness worth mentioning. During that epidemic 13 out of the 16 children contracted the disease. In all it ran a most favourable course, and in no instance were there any sequelæ. This was due to the sedulous care with which the convalescents were kept within doors and in slightly darkened rooms so long as any risk was to be apprehended from cold or glare. During March and April several cases of measles occurred also in private practice among foreign children. Neither the epidemic at the school, nor the disease which I met in private practice was the so called "Chinese measles." In every case there was marked fever accompanied by catarrhal inflammation of the ocular and respiratory mucous membranes. On the fourth day the characteristic eruption appeared with rather an increase of pyrexia, and by the ninth or tenth day convalescence was established. Measles of this type is of fair, average severity, and differs in no respect from the disease as seen in Europe. I have never seen scarlet fever in China. Only one case of diphtheria has ever been observed in Shanghai.* Hooping cough which has appeared only within the last few years, is usually of a mild type, and I know of no sequelæ after any of the cases which have occurred here.

These special facts and general considerations make it evident that the heavy extra rate of premium charged by Life Insurance Offices for residence in Shanghai is out of proportion to the risk involved, but as the companies before lowering their rates will probably demand thoroughly vouched for statistics, and as, for many reasons, such statistics are all but impossible to be obtained in Shanghai, there seems no immediate prospect of relief to life policy holders. So many contingencies arise to complicate the statistics obtained in tropical and subtropical climates that there is little chance of safely working out averages. Hence, as the basis for a tentative assessment of risk in China, the experience of the medical practitioners at the various ports is all that is available. But every year brings an increasing contingent of Europeans to the east, and therefore the assurable value of life as affected by climate is constantly becoming more important for insurance companies as well as for individual residents in these countries. It is for the companies interested to consider whether in view of the large amount of business from which their prohibitive rates shut them out, it would not be worth their while to collect the results of medical experience, and act upon them even although they should supply nothing at all approaching the certainty of the Carlisle mortality tables.

Mr. Penfold has been good enough to supply me with a return of all the deaths among natives in the English and American Settlements which came to the knowledge of the police during the winter six months. As I have in previous reports given the fantastic nomenclature of disease which is adopted by the Chinese, and as the return is utterly valueless for the purpose of classifying the causes of death among natives, and even for estimating the death-rate, which must be far higher than would appear from it, I will not occupy space by reproducing it. The total of deaths reported is 84, while the population of the two settlements is at least 70,000. This would represent a mortality of 2.4 per thousand per annum, a state of things so enviable as to stamp as worthless the documents which represent it.

It appears from the last report† furnished to the Municipal Council by the Inspector of markets that rinderpest prevailed in Shanghai during the entire half year with the exception of March. In January it was especially virulent. There is urgent need for the establishment of a public abattoir under municipal supervision, but the scheme for its establishment has followed into forgetfulness those for the lock hospital and for water-works. At page 50 of the report just cited Mr. Keele states :—

> In the early part of December, rinderpest seemed to have ceased, but about the middle of the month more cases occurred, and a milkman at Pahsienjao lost five milch buffaloes out of his herd of nine. Numbers of good cattle began to arrive from Tanyang, and the sheds assumed the accustomed appearance of former years. Towards the end of the month rinderpest again became prevalent, and numbers of cattle died. I am of opinion that these cattle were

* *Municipal Council of Shanghai.—Report for the year ended 31st March 1873;* page 58. † *Ibid;* pp. 46-50.

healthy when they arrived at the sheds at Pahsienjao, but contracted the disease from the infected sheds. * * * In the early part of January rinderpest raged to a greater extent than perhaps during any part of the year, and continued until some of the sheds were empty. Very few cattle arrived from the country, the experience of the owners shewing them that they were almost certain to lose their cattle if they brought them to Pahsienjao.

In this connexion, and with the probability of another outburst of cattle plague in the settlement, the following extract from a paper read before the meeting of the British Association in 1870 by Mr. HOPE V. C. will prove of interest :—

At an experimental farm belonging to a company in which I was interested pecuniarily and scientifically, rinderpest broke out in the summer of 1867 among a herd of 260 or 270 cows. I sent for Professor BROWN from the Privy Council, who, after making his inspection, said he had found every symptom of rinderpest except one, and that was one of the later symptoms generally, although not invariably, preceding death, namely ulceration of the mouth. Next the dreaded ulcers appeared, and Professor BROWN told me there was no means of cure known to science, that the disease was practically incurable, that in the present instance there was no sober, serious chance of saving a single animal out of the whole herd. At my particular request Professor BROWN explained the progress of the disease, and the peculiar difficulties to be encountered.

Immediately afterwards I undertook the treatment of one-half of the animals. I got all the quick-lime I could lay my hands on, with which I formed broad roadways all round the sheds, three or four inches in depth, and placed pyramids of it along the pathways in the sheds, and slaked it *in situ*, until all the animals were coughing and choking to an alarming extent. I then obtained the report of the Royal Commission on the Cattle Plague, and specially studied the experiments made by Mr. CROOKES, F.R.S., which chimed in exactly with my own instincts, and his reasoning being logical and scientific he made a disciple of me at once. I therefore telegraphed to Manchester for a barrel of genuine carbolic acid, and determined upon combining the two treatments of liquid diet for the purpose of guarding against the secondary symptoms, with what I might term the chemical treatment recommended by Mr. CROOKES. The result was that, while every single animal that I did not take charge of either died or was slaughtered, I succeeded in saving every single animal that I did take charge of; and if you consider the very large scale on which my operations were conducted, the completeness and thoroughness with which the infection had been disseminated throughout the herd, and the fact that rinderpest is the most infectious of all disorders, whether among mankind or the animal creation, known to science, no one can, I think, doubt that the treatment suggested by Mr. CROOKES is a radical and complete specific against rinderpest.

What I wish to call the attention of the section to is the fact that I saved the lives of those animals not by any medical treatment, properly so-called, of the animals themselves, but by an unremitting, ceaseless chemical onslaught on the germs of the disease.

Without an extensive record of important cases, it is hopeless to attempt to make any general remarks upon disease as it presents itself in China which should prove of value to practitioners who in consequence of their recent arrvial have not as yet acquired extensive personal experience. Yet were it possible for these periodical reports to supply this want their value would be vastly enhanced. It cannot be too widely known among the profession in China that every fully reported case which throws any light upon any obscure point of diagnosis or treatment will be welcome to these pages. Each practitioner's field of observation is, comparatively speaking, so small that it is only by combination that we shall be able after the lapse of a few years to find in these volumes a compendium of information regarding disease in China. Many valuable records are lost to the public because the labour of elaborating a paper for a home medical journal appears too great. This difficulty disappears in the case of these reports, for, for the present, the most useful service that can be rendered to the profession in China is to give bare records of observations.

One subject which is very frequently brought under our notice is the use and abuse of alcoholic beverages. Upon this the combined experience of medical men at the ports might with advantage be given to the public. Incidentally reference is frequently made to the evil effects of excess, but little has as yet been written regarding the value of alcohol, in the various forms of distilled spirits, wines and malt liquors, considered as food and as medicine. I do not refer to the use of wine in continued fevers where it forms the largest part of the routine medication. Claude BERNARD has experimentally proved that the actions of alcohol in health are entirely different according as it is swallowed in a concentrated form or largely

diluted with water. In the latter case it stimulates the mucous membrane of the stomach, and augments its secretion. Hence the appetising and peptic effect of a minute quantity of brandy much diluted with iced water taken shortly before eating in cases of atonic dyspepsia. On the other hand, when swallowed undiluted it completely arrests the secretion of the gastric mucous membrane, giving rise to a true inflammatory congestion. For this reason the popular cocktail is the most pernicious form in which alcoholic liquids can be taken, and hence also the epigastric pain, and the morning vomiting, first of colourless and watery matters, but subsequently, as the inflammation extends to the duodenum, of yellow or green fluid which so frequently come under our notice in practice. Unless warning be taken in time, the morning sickness extends itself through the day, and is excited by the mere appearance of food. The sufferer is only too likely to seek relief from drams, and thus add to the mischief, until at length organic disease declares its presence, and life is seriously imperilled, even if it is not altogether sacrificed.

The connexion between dysentery and hepatic abscess deserves careful investigation. If it be true that abscesses following dysentery and other ulcerative affections of the intestinal canal are generally multiple, while those which result from a non-specific hepatitis are single, the advisability of operative interference in a given case will materially depend upon the previous history. Gallard and Maclean, who are the most recent writers upon hepatic abscess, profess themselves distinctly of opinion that evacuation by puncture gives the patient the best chance of recovery.* This can obviously apply only to cases of single abscess.

Of late years a very large number of cases of heart disease and aneurism have presented themselves among foreigners in China, and practitioners have been much exercised to discover the causes of this unexpected frequency of degenerative changes in the circulatory system among men mostly in the prime of life. Especial interest therefore attaches to the recent investigations of Lancereaux and Duroziez which seem to prove that there is a form of endocarditis followed by vegetations and distinctive changes affecting by preference the aortic valves, which is common among individuals subject to intermittent fever, and which bears a definite relation to malarial poisoning.† Eight cases are produced by Lancereaux to support this theory, but in two of them the previous occurrence of malarial poisoning was only inferred from the condition of the spleen. In all, the aortic valves were the seat of destructive changes, and in 2 cases aneurisms (presumably at or close to the valves, though this is not stated) were found. Duroziez refers to 47 cases in which valvular lesions were preceded by malarial fever. In 20 of these there had been no antecedent malady except intermittent fever. Of the 20, eleven were under 40 years of age. In a second series of 22 cases acute rheumatism had accompanied or succeeded the malarial fever. In 3 cases pneumonia, in one case pleurisy and in one case small-pox had been superadded to the intermittent fever. Out of the first series of 20 cases, which is obviously the most important for our purpose, there was in 5 aortic valvular disease alone; in 3 cases the tricuspid and aortic valves, and in 3 cases the mitral and aortic valves were affected; in one case the mitral valve had alone suffered, and in 7 cases there was mitral disease, aortic insufficiency being apparently of secondary importance. But it would seem that when life is long enough prolonged the mitral valve, and by preference the right segment, is always or almost always attacked. The alteration consists, according to Lancereaux, in a tumefaction of the tissue of the valves, and in the production of vegetations more or less voluminous, either free or covered by a fibrinous deposit. These vegetations are formed at the expense of the valvular connective tissue, "of little rounded embryonic elements, not tending "towards development, but destined inevitably to perish." These elements, the author proceeds to state, rapidly undergo fatty degeneration, and the valves being no longer able to resist the column of blood, aneurisms, fissures, &c. are produced. Death generally occurs within a year from the first declaration of the cardiac symptoms, and is frequently the result of blood poisoning analogous to septicæmia, the foreign

* *Leçons de Clinique Médicale* par T. Gallard, Médecin de la Pitié; Paris 1872; p. 121. "*A case of abscess of the liver &c.*" by Professor Maclean C.B., in *Lancet*, vol. ii. of 1873; p. 39.

† "*De l'endocardite végétante ulcéreuse, et de ses rapports avec l'intoxication palustre,*" par le Dr. E. Lancereaux, in *Archives Générales de Médecine*, Juin 1873; p. 672. See also a letter from Dr. Duroziez in *Archives Générales de Médecine*, Juillet 1873; p. 121.

element in the blood being here derived from degenerated valve tissue. In other cases the fatal event is due to rupture of the valve or vessel, or to the presence of a polypoid growth. If these statements, coming with the authority of the great French pathologist, are found to stand the test of experience in China where there is no lack of opportunity for the study of malarial disease and all its possible sequelæ, we shall at length find some light thrown upon the causation of cardiac disease among the youthful members of the foreign communities at the ports. At all events, it will be well to follow out the clue thus afforded whether it should eventually prove to lead anywhere or nowhere.